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MARCH 2016 SEMI ANNUAL POSTCLOSURE ENVIRONMENTAL MONITORING REPORT

ENVIRITE RCRA FACILITY THOMASTON, CONNECTICUT

RAMBOLL ENVIRON

Digitally signed by John M.
Noble
DN: cn=John M. Noble,
o=ENVIRON International Corp.,
ou,
email=jnoble@environcorp.com
, c=US
Date: 2016.05.25 11:16:23
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**MARCH 2016 SEMIANNUAL POSTCLOSURE
ENVIRONMENTAL MONITORING REPORT
ENVIRTE RCRA FACILITY
THOMASTON, CONNECTICUT**

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Made by **John Noble**
Checked by **Robert Huening**
Approved by **Alan Kao**

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ACRONYMS AND ABBREVIATIONS

cis-1,2-DCE	cis-1,2-dichloroethene
CTDEEP	Connecticut Department of Energy and Environmental Protection
Denno	Denno Land Surveying
Envirite	Envirite Corporation
ft/ft	feet per foot
HDPE	high-density polyethylene
I-VC	industrial/commercial volatilization criteria
mg/L	milligram(s) per liter
MIBK	4-methyl-2-pentanone
NTU	nephelometric turbidity unit
PCE	tetrachloroethene
PCMP	postclosure monitoring plan
PCEMP	postclosure environmental monitoring plan
QA/QC	quality assurance/quality control
QAPP	quality assurance project plan
RCRA	Resource Conservation and Recovery Act
RDL	reportable detection limit
RSR	Remediation Standard Regulations
R-VC	residential volatilization criteria
SAP	sampling and analysis plan
SWPC	Surface Water Protection Criteria
TCE	trichloroethene
UCL	upper confidence limit
USEPA	United States Environmental Protection Agency
VC	vinyl chloride
VOC	volatile organic compound
WPCF	Water Pollution Control Facility

1. INTRODUCTION

On behalf of Envirite Corporation (Envirite), Ramboll Environ has completed the March 2016 semiannual postclosure environmental monitoring event at the Envirite Resource Conservation and Recovery Act (RCRA) facility (the Site) located on Old Waterbury Road in Thomaston, Connecticut. The scope of work associated with the postclosure environmental monitoring event was detailed in the following document:

- ENVIRON. 2014. Revised Post-Closure Environmental Monitoring Plan, Envirite RCRA Facility, Old Waterbury Road, Thomaston, Connecticut. November 10, 2014.

This was the fourth environmental monitoring event conducted in accordance with revised Post-Closure Environmental Monitoring Plan (PCEMP). The first was conducted in October 2014.

The location of the facility is shown in **Figure 1** (Site Location Map). The Environmental Monitoring Locations Site Plan (**Figure 2**) shows the general layout of the Site and physical features including former developed areas, landfill areas, and the existing environmental monitoring network, including groundwater monitoring wells and surface water sampling locations.

1.1 Quality Assurance Project Plan/Sampling and Analysis Plan

The Quality Assurance Project Plan/Sampling and Analysis Plan (QAPP/SAP), dated December 3, 2013, documents the quality assurance/quality control (QA/QC) procedures associated with the revised PCEMP activities. Deviations and modifications from the December 3, 2013, QAPP/SAP were detailed in the revised PCEMP and include the following:

- Modifications to the groundwater monitoring well network
- Modifications to the groundwater laboratory analytical program
- Modifications to the surface water sampling locations and laboratory analytical program

The scope of the revised semiannual PCEMP are discussed further below.

2. SEMIANNUAL POSTCLOSURE ENVIRONMENTAL MONITORING PROGRAM

This section documents the scope of the March 2016 semiannual PCEMP event, including the groundwater and surface water monitoring networks and the associated laboratory analytical programs for these media. In addition, the scope of the groundwater elevation gauging activities are described herein.

This semiannual PCEMP event was conducted from March 30 to 31, 2016.

2.1 PCEMP Groundwater Monitoring Network

In conjunction with the March 2016 PCEMP sampling event, groundwater samples were collected from the wells detailed in **Table 1**.

Table 1. Revised Postclosure Groundwater Monitoring Well Network

Well	Screened Interval (feet bgs)	Unit	Rationale
MW-30S	38 – 48	OB	Monitor groundwater quality downgradient of northern waste cells and PEWM-L and immediately surrounding former treatment facility
MW-51D ¹	18.3 – 28.3	OB	
MW-31S	17 – 27	OB	
MW-50S ¹	13.7 – 18.7	OB	
MW-53D ¹	25 – 40	OB	
MW-41D	17 – 32	OB	
MW-41S	10 – 20	OB	
MW-42S	22.5 – 32.5	OB	
MW-43D	58 – 68	OB	
MW-43S	22.5 – 32.5	OB	
MW-44D	62 – 72	OB	

1. Monitoring wells MW-50S, MW-51D, and MW-53D were added to the PCEMP.

bgs: below ground surface

BR: bedrock

OB: overburden

PEWM-L: Pre-Envirite Waste Material - Landfill

PEWM-R: Pre-Envirite Waste Material – Roadway

2.1.1 Groundwater Sampling Methodology

Groundwater sampling activities were conducted in accordance with the current USEPA-Region 1 Low-Stress (Low-Flow) Purging and Sampling Procedure for the Collection of Groundwater Samples from Monitoring Wells (EQASOP-GW 001), Revision No. 3, dated January 19, 2010. Detailed groundwater sampling procedures are discussed in the QAPP/SAP.

Groundwater samples were collected using QED bladder pumps equipped with disposable bladders and high-density polyethylene (HDPE) sample tubing. Bladders and tubing were replaced between wells, and pumps were decontaminated in accordance with the procedures specified in the QAPP/SAP. Once field parameters were stabilized within acceptable tolerances, groundwater samples were collected directly in laboratory-supplied containers containing the appropriate sample preservative for each analytical method. The samples were maintained on ice until delivery to the analytical laboratory.

During low-flow sampling, if turbidity cannot be stabilized below 5 nephelometric turbidity units (NTUs), samples are collected and analyzed for both total and dissolved metals concentrations to

evaluate the potential effect of turbidity on these concentrations. The sample aliquot for dissolved metals analysis is field-filtered through a 0.45 micron groundwater filter prior to preservation in the field. This occurred only at MW-31S during the March 2016 sampling event.

The groundwater sampling activities are documented in the field notes, field equipment calibration logs, and low-flow groundwater sampling field forms (**Appendix A**).

2.1.2 Groundwater Laboratory Analytical Program

Groundwater samples were submitted to Eurofins Spectrum Analytical, Inc. (Eurofins Spectrum) of Agawam, Massachusetts, for the following laboratory analyses:

- Volatile Organic Compounds (VOCs) by USEPA Method 8260C; and
- Total Metals: arsenic, cadmium, chromium, copper, nickel, and zinc by USEPA Method 6010C.

Note that with EPA approval (documented in an email dated March 16, 2016), barium and cyanide were dropped from the postclosure groundwater laboratory program. **Appendix B** contains the Eurofins Spectrum laboratory report.

2.2 Surface Water Sampling Program

Surface water samples were collected from within 2 to 3 feet of the shorelines adjacent to the landfill using disposable bottom-filling HDPE bailers inserted through the water column to just above the sediment-water interface. The water samples were immediately transferred to laboratory-supplied containers containing the appropriate sample preservative for each analytical method. Samples were maintained on ice until delivery to the analytical laboratory.

For the metals analyses, surface water samples were field-filtered through 0.45 micron filters prior to preservation with nitric acid in the field so the resulting metals analyses reflect dissolved metals concentrations. This was done to facilitate comparison to Connecticut Surface Water Quality Standards.

2.2.1 Surface Water Laboratory Analytical Program

The surface water samples were submitted to Eurofins Spectrum for laboratory analyses for the following parameters:

- VOCs by USEPA Method 8260C
- Dissolved Metals: arsenic, cadmium, copper, and zinc by USEPA Method 6020A

2.3 Sample Design Logistics

Table 2 summarizes the sample design logistics for the March 2016 PCEMP monitoring event.

Table 2. Sample Design Logistics

Sampling Matrix	Parameter	Analytical Method Reference	Number of Samples	Sampling Frequency	Sampling Period
Groundwater	VOCs	SW-846/ USEPA Method 8260C	11 Primary Samples 1 Trip Blank 1 Field Duplicate 1 Equipment Blank	Semiannual	March 2016
	Total Metals	SW-846/ USEPA Method 6010C	11 Primary Samples 1 Field Duplicate 1 Equipment Blank		

Sampling Matrix	Parameter	Analytical Method Reference	Number of Samples	Sampling Frequency	Sampling Period
Surface Water – Naugatuck River and Branch Brook	VOCs	SW-846/ USEPA Method 8260C	4 Primary Samples 1 Field Duplicate 1 Equipment Blank	Semiannual	March 2016
	Dissolved Metals	SW-846/ USEPA Method 6020A			

2.4 Groundwater Gauging Event

A comprehensive groundwater elevation gauging event was conducted on March 30, 2016, prior to the initiation of sampling activities. Depth to groundwater in each viable groundwater monitoring well was measured to the nearest 0.01 foot using an electronic interface probe.

The following is noteworthy with respect to the groundwater gauging conducted during this monitoring period:

- Although their exact construction details are unknown, water levels from shallow wells UNK-2 and UNK-4 were used to generate the overburden groundwater elevation contours because the water levels were measured to be within 10 feet of the bottom of the wells, within the presumed 10-foot screened interval.
- Well UNK-5S was not gauged due to the presence of a rodent in the well.

Appendix A contains the groundwater elevation data field form for the March 30, 2016 gauging event.

3. DISCUSSION OF RESULTS

This semiannual report documents the March 2016 monitoring event (dates, samples collected, etc.) and the associated observations and analytical results, including tabulated field and analytical data. This report includes a discussion of QA/QC sample results and overburden and bedrock groundwater contour maps depicting the inferred groundwater flow directions beneath the landfill.

An annual report will be prepared following the completion of the September 2016 semiannual monitoring event, which will present a more comprehensive data analysis. The annual report will include all of the components of the semiannual reports, as well as a discussion of groundwater and surface water quality trends and the results the data validation activities (see QAPP/SAP, Section 19) noting any identified QA problems and implications and/or resolution. Finally, the annual reports will render an opinion regarding the adequacy of the current monitoring program and will make recommendations regarding modifications to the PCEMP, if warranted.

3.1 Groundwater Elevation Plans and Inferred Groundwater Flow Directions

Table 3 summarizes the depth to groundwater and elevation data for the March 2016 gauging event and the calculated vertical hydraulic gradients at all well couplet and triplet locations.

Overburden and bedrock groundwater elevation contours were developed using Surfer© surface mapping system software employing the kriging algorithm. As requested by USEPA, groundwater elevation data from bedrock monitoring well MW-55B and deep overburden well MW-51D were used when generating the overburden groundwater elevation contours.

3.1.1 March 30, 2016 Groundwater Elevations

The first quarter 2016 gauging of the on-Site wells was completed on March 30, 2016, and the resulting overburden and bedrock groundwater elevation contours are depicted on **Figure 3-1** and **Figure 3-2**, respectively.

Based on the March 30, 2016 contours, shallow overburden groundwater flows in a general south-southwesterly direction beneath the landfill under a horizontal hydraulic gradient of approximately 0.0063 feet of head per foot of horizontal distance (ft/ft). Bedrock groundwater flows in a general south-southeast to south-southwest direction beneath the landfill under a horizontal hydraulic gradient of approximately 0.0049 ft/ft.

The March 2016 overburden and bedrock groundwater elevation contours are generally consistent with previous quarterly gauging events.

3.2 Groundwater Quality Discussion

Groundwater quality data for the March 2016 semiannual PCEMP monitoring event is summarized in **Table 4**. The stabilized geochemical parameters measured in the field during low-flow sampling activities are summarized in **Table 5**.

The groundwater quality data are compared to the following groundwater criteria listed the Connecticut Remediation Standard Regulations (RSRs), Section 22a-133k-1 through 22a-133k-3, dated June 27, 2013:

- Surface Water Protection Criteria (SWPC) listed in Appendix D of the RSRs
- Industrial/Commercial Volatilization Criteria (I-VC) listed in Appendix E of the RSRs.

Note that the Connecticut Department of Energy and Environmental Protection (CTDEEP) RSRs¹ are provided on the groundwater analytical summary tables for reference only.

3.2.1 March 2016 Groundwater Quality Data

The following summarizes the groundwater quality data for the March 2016 sampling event:

- Cadmium was not detected above RDLs in any of the groundwater samples collected. Of the metals detected at concentrations above RDLs, only arsenic, copper, and zinc were detected at concentrations above applicable SWPC.
 - Arsenic was detected at concentrations exceeding the 0.004 mg/L SWPC in the samples collected from interior well MW-30, and downgradient wells MW-43S and MW-44D,. The maximum arsenic concentration (0.0157 mg/L) was detected in the sample from MW-43S while the concentrations in the samples from MW-30 and MW-44D were only slightly above the SWPC.
 - Copper was detected at concentrations exceeding the 0.048 mg/L SWPC in the samples collected from wells MW-51D (located on the interior of the Site immediately west of the former treatment building) and downgradient well MW-43D with the maximum concentration (0.536 mg/L) detected in the sample from MW-43D.
 - Zinc was detected at concentrations exceeding the 0.123 mg/L SWPC in the samples collected from wells MW-31S (located immediately adjacent to the PEWM-R) and downgradient well MW-43D with the maximum concentration (2.07 mg/L total/1.32 mg/L dissolved) detected in the sample from MW-31S.
 - Detected zinc concentrations in samples MW-41S, MW-41D, MW-43S, and MW-53D were qualified as estimated, non-detect (UJ) due to the detection in the groundwater equipment blank. However, this detection does not affect data usability, as the detected concentrations in these samples were below applicable SWPC (see **Section 3.4**).
- VOCs detected above analytical RDLs in the groundwater samples included 2-butanone (MEK), cis-1,2-dichloroethene (cis-1,2-DCE), ethylbenzene, 4-methyl-2-pentanone (MIBK), tetrachloroethene (PCE), toluene, trichloroethene (TCE), 1,2,4-trimethylbenzene, vinyl chloride (VC), and xylenes.
 - Although the individual VOC concentrations were below applicable groundwater criteria, the highest overall concentrations of VOCs were detected in the sample collected from well MW-31S (located immediately adjacent to the PEWM-R). It should be noted that the RDLs for several VOCs in MW-31S were elevated due to the elevated concentrations of other target compounds.
 - Vinyl chloride was the only VOC detected at concentrations exceeding the 2 µg/L I-VC in four samples collected from well MW-53D immediately downgradient of the PEWM-R interior well MW-30, and downgradient wells MW-43D and MW-44D. The highest vinyl

¹ It should be noted that Envirite's legal counsel had advised that, according to the Regulations of Connecticut State Agencies Section 22a-133k-1(b), the RSRs do not apply to areas that are affected by discharges allowed under a groundwater discharge permit issued pursuant to Section 22a-430. Envirite has held a groundwater discharge permit since 1984 at the Thomaston facility. Thus, while compliance with RSRs is one indicator of potential need for remediation to CTDEEP, USEPA, and Envirite, these regulations are not strictly applicable to groundwater constituent levels at the Thomaston facility.

chloride concentration was detected in interior well MW-30 (12.2 µg/L). Vinyl chloride was also detected below the I-VC at downgradient well MW-51D. As noted above, the RDL for VC in MW-31S was relatively elevated (500 µg/L) due to the elevated concentrations of other target compounds.

- VOCs were detected at concentrations below applicable standards in the samples collected from PEWM-R well MW-31S; interior well MW-51D; and downgradient wells MW-41S, MW-41D, MW-42S, MW-43S, and MW-50S.

Table 6 summarizes the exceedances of applicable groundwater criteria observed during the March 2016 groundwater sampling event.

Table 6. Groundwater Criteria Exceedances March 2016

Well	March 2015	SWPC	I/C-VC
MW-30	As = 0.0041 mg/L VC = 12.2 µg/L	0.004 mg/L 15,750 µg/L	- 2 µg/L
MW-31S	Zn = 2.07 mg/L	0.123 mg/L	-
MW-43S	As = 0.0157 mg/L	0.004 mg/L	-
MW-43D	Cu = 0.536 mg/L Zn = 0.49 mg/L VC = 2.5 µg/L	0.048 mg/L 0.123 mg/L 15,750 µg/L	- - 2 µg/L
MW-44D	As = 0.0044 VC = 5.3 µg/L	0.004 mg/L 15,750 µg/L	- 2 µg/L
MW-51D	Cu = 0.0786 mg/L	0.048 mg/L	-
MW-53D	VC = 2.6 µg/L	15,750 µg/L	2 µg/L

Notes:

- indicates groundwater criteria is not established.

As: arsenic PCE: tetrachloroethene

Cu: copper

TCE: trichloroethene

µg/L: microgram(s) per liter

VC: vinyl chloride

mg/L: milligram(s) per liter

Zn: zinc

Yellow shading indicates groundwater criteria exceeded.

3.3 Surface Water Quality Discussion

Table 7 summarizes the surface water quality data for the March 2016 monitoring event.

Surface water samples SW-BB-1, SW-BB-2, SW-NR-1, and SW-NR-2 were collected from Branch Brook and the Naugatuck River, upstream and downstream of the landfill, respectively. **Figure 2** depicts the location of the surface water samples.

The surface water quality data were compared to the Numerical Water Quality Criteria for Chemical Constituents listed in the Connecticut Water Quality Standards, Sections 22a-426-1 to 22a-426-9, effective October 10, 2013. Specifically, the surface water quality data were

compared to the Acute and Chronic Freshwater Aquatic Life Criteria listed in **Table 3**, Section 22a-426-9 Environmental Criteria.

The following summarizes the surface water quality data for the March 2016 sampling event.

- No VOCs were detected above analytical RDLs in the March 2016 surface water samples from Branch Brook or the Naugatuck River.
- Cadmium was detected in all of the surface water samples at concentrations below the established acute and chronic Freshwater Aquatic Life Criteria.
- Although copper was detected in all of the surface water samples above RDLs; all of the reported copper concentrations are qualified as estimated, non-detect (UJ) due to the detection in the surface water equipment blank. It should be noted that this does not affect data usability as all reported concentrations were below the established acute and chronic Freshwater Aquatic Life Criteria. In addition, there was no significant difference between upstream and downstream copper concentrations (see **Section 3.4**).
- Although zinc was detected in all of the surface water samples above RDLs; all of the reported copper concentrations are qualified as estimated, non-detect (UJ) due to the detection in the laboratory method blank. It should be noted that this does not affect data usability as all reported concentrations were below the established acute and chronic Freshwater Aquatic Life Criteria (see **Section 3.4**). In addition, there was no significant difference between upstream and downstream zinc concentrations
- Arsenic (1 sample), cadmium, and zinc (all samples) were detected at estimated concentrations (j-flagged) below the established acute and chronic Freshwater Aquatic Life Criteria. The concentrations were flagged as estimated because they fell between the Method Detection Limits (MDLs) and Reportable Detection Limit (RDLs). It was requested that the lab report estimated concentrations to increase reported sensitivity (and lower the reporting thresholds).

3.4 Data Validation and Usability Discussion

The data validation report prepared to assess the validity and usability of laboratory analytical data generated from samples collected during the March 2016 PCEMP groundwater and surface water monitoring event is presented in **Appendix C**.

The analytical data were evaluated for QA/QC based on ENVIRON's QAPP/SAP for the Site (December 2013), USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008), and USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review (January 2010). A USEPA Tier I data validation was performed on all laboratory data. Although the QAPP/SAP requires that a minimum of 10% of the data would undergo USEPA Tier II data validation, all of the groundwater and surface water data in Spectrum laboratory report SDG SC19667 underwent USEPA Tier II data validation.

Tables 4 and **7** also include the QA/QC blank sample data for the March 2016 monitoring event. The QA/QC duplicate sample data are included in the groundwater and surface water quality data summary tables discussed above.

- No VOCs were detected above analytical RDLs in the groundwater or surface water equipment or trip blank QA/QC samples for this monitoring event.

- The groundwater and surface water duplicate sample results for this monitoring event were consistent with the primary sample results and do not indicate an issue with analytical precision.
- The detection of copper and zinc at low concentrations in the groundwater and surface water equipment and laboratory method blanks and the associated implications are discussed below.

The data validation report (**Appendix C**) summarizes the QA/QC evaluation of the data according to precision, accuracy, representativeness, completeness, and comparability relative to the project data quality objectives. The report provides a quantitative and qualitative assessment of the data and identifies potential sources of error, uncertainty, and bias that may affect the overall usability of the data.

- The results of the data validation efforts indicate the data are usable for their intended purpose, as qualified, based on an evaluation of the QC parameters discussed in the data validation report.
- Zinc was detected at a concentration of 0.0074 mg/L in the groundwater equipment blank. As such, all detections of zinc below 5X the concentration detected in the equipment blank (0.0370 mg/L) are qualified as non-detect, estimated (UJ) which applies to MW-41S, MW-41D, MW-43S, and MW-53D. This does not affect data usability as all UJ concentrations were below applicable SWPC. The groundwater equipment blank was prepared by pouring laboratory supplied distilled-deionized control water over the bladder pump equipment and collecting the rinsate.
- Zinc was detected at an estimated concentration (J-flagged) of 0.00309 mg/L in the laboratory method blank associated with the surface water analysis. As such, all detections of zinc below 5X the concentration detected in the blank (0.01545 mg/L) are qualified as non-detect, estimated (UJ) which applies to all of the primary surface water samples as well as the surface water equipment blank. Zinc was also detected at an estimated concentration (J-flagged) of 0.00239 mg/L in the surface water equipment blank. This does not affect data usability as all UJ zinc concentrations in the equipment blank and all primary samples were below applicable acute and chronic Freshwater Aquatic Life Criteria.
- Copper was detected at a concentration of 0.00034 mg/L in the surface water equipment blank. As such, all detections of copper below 5X the concentration detected in the equipment blank (0.0017 mg/L) are qualified as non-detect, estimated (UJ) which applies to all of the surface water samples. As with zinc, this does not affect data usability since the UJ copper concentrations in the equipment blank and all primary samples were below applicable acute and chronic Freshwater Aquatic Life Criteria. The surface water equipment blank was prepared by pumping approximately 1.5 L of laboratory supplied distilled-deionized control water through the field filters used over the bladder pump equipment before collecting the sample.

4. CONCLUSIONS AND RECOMMENDATIONS

Ramboll Environ has completed the March 2016 semiannual PCEMP sampling event. No significant data anomalies were identified during this sampling event. Ramboll Environ recommends that the environmental monitoring program detailed in the revised PCEMP, dated November 10, 2014 and subsequently modified, continue to be implemented through 2016.

The next scheduled environmental monitoring event is the semiannual PCEMP sampling event slated for September 2016.

TABLES

Table 3
Groundwater Elevation Data and Vertical Hydraulic Gradients
2016

Envirite RCRA Facility
Old Waterbury Road, Thomaston, CT

Well	Screened Interval		Type	Ground Elevation (feet)	TOC Elevation (feet)	Stickup (feet)	3/30/16			Comments
	Top (feet BGS)	Bottom (feet BGS)					Depth to Water (ft BTOP)	Groundwater Elevation (feet)	Vertical Gradient (feet/foot)	
MW-30	38	48	DOB	342.13	341.74	-0.39	17.22	324.52		
MW-31S	17	27	OB	340.13	340.29	0.16	15.51	324.78	0.0207	
MW-31D	26.5	31.5	DOB	339.90	341.77	1.87	17.14	324.63	-0.0115	
MW-31B	37	47	BR	339.90	341.79	1.89	17.01	324.78		
MW-32S	14	24	OB	340.06	340.66	0.60	15.21	325.45	0.0311	
MW-32D	24.5	39.5	DOB	339.87	340.37	0.50	15.33	325.04		
MW-33	15	25	OB	339.05	340.47	1.42	18.16	322.31		
MW-36	21.5	31.5	DOB	326.77	328.74	1.97	6.37	322.37		Tubing and bailer wedged in well/Could not remove
MW-37D	27	32	DOB	325.55	327.53	1.98	5.18	322.35	0.0099	
MW-37B	55.7	65.7	BR	325.53	327.39	1.86	5.35	322.04		
MW-41S	10	20	OB	332.94	334.73	1.79	12.01	322.72	-0.0263	
MW-41D	17	32	OB	332.94	334.48	1.54	11.51	322.97	-0.0066	
MW-41B	45	55	BR	332.83	334.61	1.78	11.47	323.14		
MW-42S	22.5	32.5	OB	339.55	341.16	1.61	18.86	322.30	-0.0081	
MW-42B	65	75	BR	340.09	342.15	2.06	19.51	322.64		
MW-43S	22.5	32.5	OB	339.26	340.41	1.15	18.20	322.21	Negligible	
MW-43D	58	68	DOB	339.21	340.65	1.44	18.46	322.19		
MW-44S	17	27	OB	337.97	338.63	0.66	16.45	322.18	Negligible	
MW-44D	62	72	OB	338.01	339.23	1.22	17.05	322.18	-0.0090	
MW-44B	75	85	BR	337.73	340.29	2.56	17.99	322.30		
MW-50S	13.7	18.7	OB	336.30	337.69	1.39	13.37	324.32		
MW-51D	18.3	28.3	OB	340.79	340.41	-0.38	16.42	323.99	-0.0148	
MW-51B	38.5	48.5	BR	340.73	340.27	-0.46	15.98	324.29		
MW-52D	43.5	58.5	OB	342.86	342.47	-0.39	N/M			Bailer and tubing wedged in well
MW-53D	25	40	OB	338.18	339.77	1.59	15.16	324.61		
MW-55B	15	25	BR	339.81	341.28	1.47	14.72	326.56		
MW-61S	14	20	OB	337.31	339.34	2.03	15.78	323.56	0.0083	
MW-61D	42	52	OB	337.34	339.36	2.02	16.05	323.31	-0.0106	
MW-61B	59	69	BR	337.38	339.54	2.16	16.05	323.49		
MW-62	19	21	OB	336.90	338.53	1.63	14.67	323.86	-0.0118	
MW-62B	26	36	BR	336.86	338.61	1.75	14.62	323.99		
MW-63	14.5	24.5	OB	343.05	342.69	-0.36	16.88	325.81		
UNK-1	Unknown		?	334.14	N/M	-	N/M	-	-	Filled with concrete
UNK-2	Unknown	19.53	?	333.47	334.61	1.14	12.67	321.94	-	Unknown Well
UNK-3	Unknown	35.28	?	329.54	330.75	1.21	9.05	321.70	-	Unknown Well
UNK-4	Unknown	27.14	?	338.22	339.75	1.53	17.57	322.18	-	Unknown Well
UNK-5S	Unknown	13.85	?	325.45	327.26	1.81	N/M	-	-	Rodent in Well
UNK-5D	Unknown	41.00	?	325.48	327.55	2.07	5.73	321.82	-	Unknown Well

Indicates well is located across Branch Brook

Indicates well is located off Site on Thomaston POTW property and adjacent roadway

Indicates groundwater elevation used to generate overburden groundwater elevation contours

Indicates upward hydraulic gradient

Indicates downward hydraulic gradient

BR: bedrock well

OB: shallow overburden well

DOB: deep overburden well

TOC: top of well casing

BTOP: below top of well casing

BGS: below ground surface

N/M: not measured

TABLE 4
Groundwater Quality Data
March 2016

Enviro RCRA Landfill
Old Waterbury Road, Thomaston, CT

Analyses (concentration)	Sample Location CF TSSR 3/1/2016	PEWW Wells MW-3D MW-3S (Filtered)		MW-5D 3/31/2016		MW-4TS 3/31/2016		MW-4ID 3/31/2016		MW-4AS 3/30/2016		MW-4D 3/30/2016		MW-5S 3/31/2016		Downgradient Wells		QA/QC
		Result	RDL	Result	RDL	Result	RDL	Result	RDL	Result	RDL	Result	RDL	Result	RDL	Result	RDL	Equipment Bank
																		3/31/2016
Antimony	-	0.004	BRL	0.004	BRL	0.004	BRL	0.004	BRL	0.004	BRL	0.004	BRL	0.004	BRL	0.004	BRL	0.004
Chromium	-	0.006	BRL	0.005	BRL	0.005	BRL	0.005	BRL	0.005	BRL	0.005	BRL	0.005	BRL	0.005	BRL	0.005
Copper	-	0.042	BRL	0.042	BRL	0.042	BRL	0.042	BRL	0.042	BRL	0.042	BRL	0.042	BRL	0.042	BRL	0.042
Nickel	-	0.048	BRL	0.048	BRL	0.048	BRL	0.048	BRL	0.048	BRL	0.048	BRL	0.048	BRL	0.048	BRL	0.048
Zinc	-	0.088	BRL	0.111	BRL	0.117	BRL	0.117	BRL	0.122	BRL	0.122	BRL	0.122	BRL	0.122	BRL	0.122
Variable Organic Compounds (ug/L)	-	-	BRL	500	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
1,1,1,2-Tetrachloroethane (Freon 113)	-	-	BRL	500	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Acetone	50,000	-	BRL	250	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Acrylonitrile	-	-	BRL	710	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Bromoform	-	-	BRL	500	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Bromochloromethane	-	-	BRL	250	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Bromodichloromethane	-	-	BRL	500	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Bromofluoromethane	-	-	BRL	10,000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Bromoform	3,800	-	BRL	10,000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Bromoform (MHW)	-	-	BRL	10,000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
2-Bromoethane	50,000	-	BRL	500	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
n-Butylbenzene	-	-	BRL	500	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
sec-Butylbenzene	-	-	BRL	132	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Carbon tetrachloride	40	-	BRL	420,000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Carboxylic Acid	-	-	BRL	100,000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Chlorobenzene	6,150	-	BRL	100	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Chloroform	710	14.00	BRL	1000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Chromate	-	-	BRL	1000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
2-Chlorobutane	-	-	BRL	900	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
4-Chloro-3-chloropropene	-	-	BRL	10,000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Dibromochloromethane	-	-	BRL	1,020	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
1,2-Dibromoethane (EDB)	16	-	BRL	250	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
1,2-Dibromoethane	-	-	BRL	500	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
1,2,4,4-Tetrachlorobutene	50,000	-	BRL	260,000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
1,3-Dibromobutene	-	-	BRL	50,000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
1,4-Dibromobutene	-	-	BRL	50,000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Dichlorodifluoromethane (Freon 12)	-	-	BRL	1000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
1,1-Dichloroethane	50,000	-	BRL	500	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
1,1-Dichloroethane	6	2.97	BRL	4740	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
1,1,2,2-Tetrachloroethane	-	-	BRL	500	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
trans-1,2-Dichloroethylene	60	-	BRL	500	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
1,3-Dibromopropane	-	-	BRL	500	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
1,3-Dibromopropane	-	-	BRL	500	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
1,1-Dibromoether	-	-	BRL	500	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
cis-1,3-Dibromopropene	-	-	BRL	250	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
trans-1,3-Dibromopropene	-	-	BRL	500	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
1,1,1,2-Tetrachloroethane	50,000	-	BRL	4240	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
2,4-Dinitrophenol	-	-	BRL	500	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
4-Iodoxybutane	-	-	BRL	3,000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Methyl Perchlorate	-	-	BRL	50,000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
4-Methyl-2-pentanone (MIBK)	50,000	-	BRL	22,400	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Methylamine	50,000	-	BRL	48,000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
n-Propylbenzene	-	-	BRL	500	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Syrene	2,065	-	BRL	500	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
1,1,1,2-Tetrachloroethane	50	-	BRL	11	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
1,1,2,2-Tetrachloroethane	-	-	BRL	88	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Toluene	50,000	-	BRL	15,600	4,000,000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
1,2,3-Trichlorobutene	-	-	BRL	15,750	2	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
1,2,4-Trichlorobutene	-	-	BRL	7870	1000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
1,3,5-Trichlorobutene	-	-	BRL	2860	500	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Terhalothione	540	2.340	BRL	19,800	62,000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Terhalothione (Freron 11)	-	-	BRL	500	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
1,2,3-Trichloropropene	-	-	BRL	500	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
1,2,3-Triiodomethane	-	-	BRL	515	500	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
1,3,5-Triiodomethane	-	-	BRL	500	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Vinyl chloride	2	15.750	BRL	500	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
mp-Xylene	50,000	-	BRL	1000	500	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Tetrahydrofuran	-	-	BRL	500	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Tetrahydrofuran	-	-	BRL	500	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Tetrahydrofuran ether	-	-	BRL	500	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Ethyl tert-butyl ether	-	-	BRL	500	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Di-isopropyl ether	-	-	BRL	500	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Ter-Butanol (bay alcohol)	-	-	BRL	10,000	20,000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
trans-1,4-Dichlorobutene	-	-	BRL	400	2000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Ethanol	-	-	BRL	400	2000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT

Notes

1. Groundwater criteria taken from Commercial Remediation Standard (CRS) Section 22a-133k, through June 26, 2013.

2. Site-specific detection limit.

3. IC/VG = Inertial Commercial Vibration Criteria

4. * indicates RDL above RSL criteria.

5. RDL = Reportable Detection Limit

6. CR = Commercially Recoverable

7. NT = Not Tested

8. Blue indicates RDL above RSL criteria.

9. Red indicates concentration exceeds RSL criteria.

10. Chromate S/C detection limit exceeded in laboratory method and/or equipment bank.

TABLE 5
STABILIZED AND/OR FINAL GEOCHEMICAL FIELD PARAMETERS
2016

Envirite Facility
Old Waterbury Rd, Thomaston, CT
Ramboll Environ Project No. 08-14218I

Groundwater Monitoring Well	Discrete Interval Specs		March 2016							
	Screen Intervals (feet BGS)		Flow Rate (mL/min)	Depth to Water (feet TOC)	pH (SU)	Temp. (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)
	Top Depth	Bottom Depth								
MW-30	38.0	48.0	30	17.26	5.06	21.87	3407.00	0.94	187.00	4.71
MW-31S	17.0	27.0	60	17.30	6.10	13.44	1417.00	0.18	-20.50	8.01
MW-31D	26.5	31.5	-	-	-	-	-	-	-	-
MW-31B	37.0	47.0	-	-	-	-	-	-	-	-
MW-32S	14.0	24.0	-	-	-	-	-	-	-	-
MW-32D	24.5	39.5	-	-	-	-	-	-	-	-
MW-33	15.0	25.0	-	-	-	-	-	-	-	-
MW-36	21.5	31.5	-	-	-	-	-	-	-	-
MW-37D	27.0	32.0	-	-	-	-	-	-	-	-
MW-37B	55.7	65.7	-	-	-	-	-	-	-	-
MW-41S	10.0	20.0	160	12.05	5.97	11.76	329.00	1.93	215.90	0.36
MW-41D	17.0	32.0	160	11.55	6.15	12.30	468.00	0.14	351.00	0.00
MW-41B	45.0	55.0	-	-	-	-	-	-	-	-
MW-42S	22.5	32.5	200	18.92	6.18	12.41	538.00	4.44	153.10	2.38
MW-42B	65.0	75.0	-	-	-	-	-	-	-	-
MW-43S	22.5	32.5	200	18.21	6.02	11.98	1235.00	2.01	57.70	1.22
MW-43D	58.0	68.0	160	18.50	5.33	11.92	1222.00	0.35	180.00	1.37
MW-44S	17.0	27.0	-	-	-	-	-	-	-	-
MW-44D	62.0	72.0	160	17.05	6.07	9.61	2028.00	0.25	403.7	0.00
MW-44B	75.0	85.0	-	-	-	-	-	-	-	-
MW-50S	13.7	18.7	160	13.42	5.08	11.47	1084.00	0.17	441.80	3.86
MW-51D	18.3	28.3	200	16.47	6.03	11.98	1209.00	0.28	126.50	0.19
MW-51B	38.5	48.5	-	-	-	-	-	-	-	-
MW-52D	43.5	58.5	-	-	-	-	-	-	-	-
MW-53D	25.0	40.0	160	15.24	6.05	13.04	936.00	0.57	416.00	0.00
MW-55B	15.0	25.0	-	-	-	-	-	-	-	-
MW-56S	7.0	12.0	-	-	-	-	-	-	-	-
MW-56D	49.0	54.0	-	-	-	-	-	-	-	-
MW-57	7.0	12.0	-	-	-	-	-	-	-	-
MW-58S	6.0	11.0	-	-	-	-	-	-	-	-
MW-58D	68.5	75.1	-	-	-	-	-	-	-	-
MW-59S	5.0	15.0	-	-	-	-	-	-	-	-
MW-59D	40.0	50.0	-	-	-	-	-	-	-	-
MW-60	4.0	14.0	-	-	-	-	-	-	-	-
MW-61S	14.0	20.0	-	-	-	-	-	-	-	-
MW-61D	42.0	52.0	-	-	-	-	-	-	-	-
MW-61B	59.0	69.0	-	-	-	-	-	-	-	-
MW-62	19.0	21.0	-	-	-	-	-	-	-	-
MW-62B	26.0	36.0	-	-	-	-	-	-	-	-
MW-63	14.5	24.5	-	-	-	-	-	-	-	-

- Notes:
1. BGS refers to below ground surface.
 2. Well installation depths expressed in feet relative to ground surface.
 3. feet TOC indicates measurements are expressed in feet below the top of the steel well casing.
 4. - indicates not measured.

TABLE 7

Surface Water Quality Data
March 2016

Envirite RCRA Landfill
Old Waterbury Road, Thomaston, CT

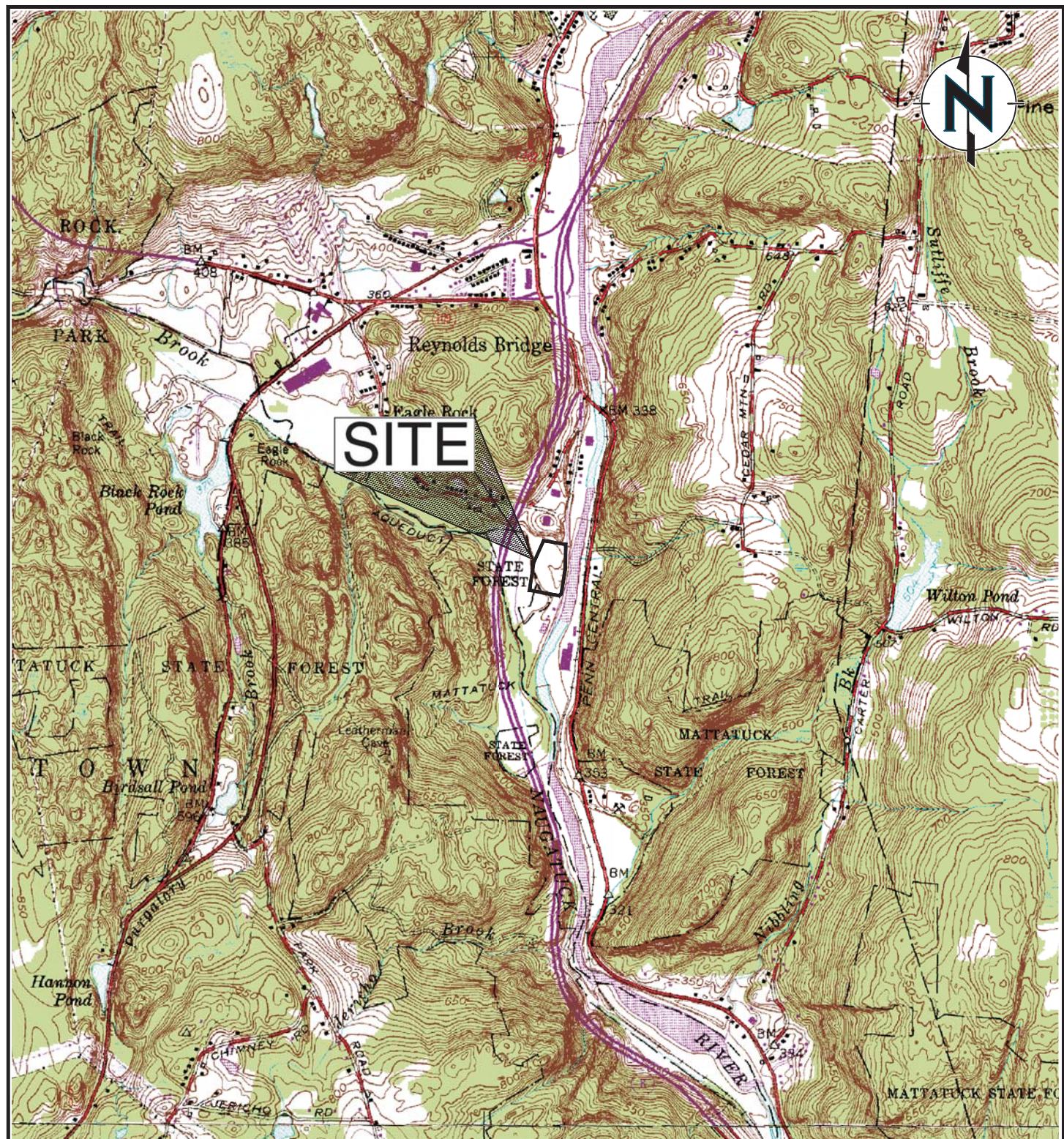
Analyses (concentrations)	Sample Location	Naugatuck River				Branch Brook				QA/QC		
		Freshwater Aquatic Life Criteria		3/30/2016		SW-NR-2		3/30/2016		SW-BB-2	3/30/2016	3/30/2016
		Acute	Chronic	Result	RDL	Result	RDL	Result	RDL	Result	RDL	Results
Total Metals (mg/l)												
Arsenic	-	0.34	0.15	BRL	0.00002	BRL	0.00002	BRL	0.00025	BRL	0.0002	0.00025
Cadmium	-	0.001	0.000125	0.00005	0.00025	0.00025	0.00025	0.00002	0.00025	0.00025	NT	NT
Copper	-	0.0143	0.0048	0.00136	0.00025	0.00153	0.00025	0.00148	0.00025	0.00081	0.00025	0.00034
Zinc	-	0.065	0.065	0.008	0.0087	0.0087	0.00844	0.0087	0.0059	0.0087	0.00613	0.0087
Volatile Organic Compounds (µg/l)												
1,1,2-Trichlorotrifluoroethane (Freon 113)	-	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL
Acetone	-	-	-	BRL	10	BRL	10	BRL	10	BRL	10	BRL
Acrylonitrile	-	-	-	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL
Benzene	-	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL
Bromobenzene	-	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL
Bromoform	-	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL
Bromomethane	-	-	-	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL
Bromodichloromethane	-	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL
Bromofluoromethane	-	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL
Bromine	-	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL
Bromomethane	-	-	-	BRL	2	BRL	2	BRL	2	BRL	2	BRL
2-Butanone (MEK)	-	-	-	BRL	10	BRL	10	BRL	10	BRL	10	BRL
n-Butylbenzene	-	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL
sec-Butylbenzene	-	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL
tert-Butylbenzene	-	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL
Carbon disulfide	-	-	-	BRL	2	BRL	2	BRL	2	BRL	2	BRL
Carbon tetrachloride	-	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL
Chlorobenzene	-	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL
Chloroethane	-	-	-	BRL	2	BRL	2	BRL	2	BRL	2	BRL
Chloroform	-	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL
Chloromethane	-	-	-	BRL	2	BRL	2	BRL	2	BRL	2	BRL
2-Chlorotoluene	-	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL
4-Chlorotoluene	-	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL
1,2-Dibromo-3-chloropropane	-	-	-	BRL	2	BRL	2	BRL	2	BRL	2	BRL
Dibromochloromethane	-	-	-	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL
1,2-Dibromoethane (EDB)	-	-	-	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL
Dibromomethane	-	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL
1,2-Dichlorobenzene	-	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL
1,3-Dichlorobenzene	-	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL
1,4-Dichlorobenzene	-	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL
Dichlorodifluoromethane (Freon12)	-	-	-	BRL	2	BRL	2	BRL	2	BRL	2	BRL
1,1-Dichloroethane	-	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL
1,2-Dichloroethane	-	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL
trans-1,2-Dichloroethene	-	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL
1,2-Dichloropropane	-	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL
1,3-Dichloropropane	-	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL
2,2-Dichloropropane	-	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL
1,1-Dichloropropene	-	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL
cis-1,3-Dichloropropene	-	-	-	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL
trans-1,3-Dichloropropene	-	-	-	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL
Ethylbenzene	-	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL
Hexachlorobutadiene	-	-	-	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL
Isobutylbenzene	-	-	-	BRL	10	BRL	10	BRL	10	BRL	10	BRL
Isopropylbenzene	-	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL
4-Isopropyltoluene	-	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL
Methyl tert-butyl ether	-	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL
4-Methyl-2-pentanone (MIBK)	-	-	-	BRL	10	BRL	10	BRL	10	BRL	10	BRL
Methylene chloride	-	-	-	BRL	2	BRL	2	BRL	2	BRL	2	BRL
Naphthalene	-	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL
n-Propylbenzene	-	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL
Sterene	-	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL
1,1,1,2-Tetrachloroethane	-	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL
1,1,2,2-Tetrachloroethane	-	-	-	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL
Tetrachloroethene	-	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL
Toluene	-	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL
1,2,2-Trichloroethene	-	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL
1,2,3-Trichlorobenzene	-	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL
1,2,4-Trichlorobenzene	-	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL
1,3,5-Trichlorobenzene	-	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL
1,1,1-Trichloroethane	-	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL
1,1,2-Trichloroethane	-	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL
Trichloroethene	-	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL
Trichlorofluoromethane (Freon 11)	-	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL
1,2,3-Trichloropropane	-	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL
1,2,4-Trimethylbenzene	-	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL
1,3,5-Trimethylbenzene	-	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL
Vinyl chloride	-	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL
m,p-Xylene	-	-	-	BRL	2	BRL	2	BRL	2	BRL	2	BRL
o-Xylene	-	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL
1,1,1-Trifluoroethane	-	-	-	BRL	2	BRL	2	BRL	2	BRL	2	BRL
1,1,1,2-Tetrafluoroethane	-	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL
Ethyl ether	-	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL
Tert-amyl methyl ether	-	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL
Ethyl tert-butyl ether	-	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL
Di-isopropyl ether	-	-	-	BRL	10	BRL	10	BRL	10	BRL	10	BRL
Tert-Butanol / butyl alcohol	-	-	-	BRL	5	BRL	5	BRL	5	BRL	5	BRL
trans-1,4-Dichloro-2-butene	-	-	-	BRL	20	BRL	20	BRL	20	BRL	20	BRL
1,4-Dioxane	-	-	-	BRL	400	BRL	400	BRL	400	BRL	400	BRL
Ethanol	-	-	-	BRL	400	BRL	400	BRL	400	BRL	400	BRL

Notes

1. Freshwater aquatic life criteria taken from Connecticut Remediation Standard Regulations (RSRs), Section 22a-426-1 through 22a-426-9, dated October 10, 2013.
2. RSR = Remediation Standard not established.
3. RDL = Reportable Detection Limit
4. BRL = Below Reportable Detection Limit
5. NT = Not Tested
6. Blue indicates RDL above RSR criteria.
7. Red indicates concentration exceeds RSR criteria.
8. Indicates estimated concentration (J Flag) between the Method Detection Limit (MDL) and Reportable Detection Limit (RDL).
9. Green shading indicates concentration has been qualified as estimated, non-detect due to detections in laboratory method and/or equipment blank.

Thomaston, Connecticut

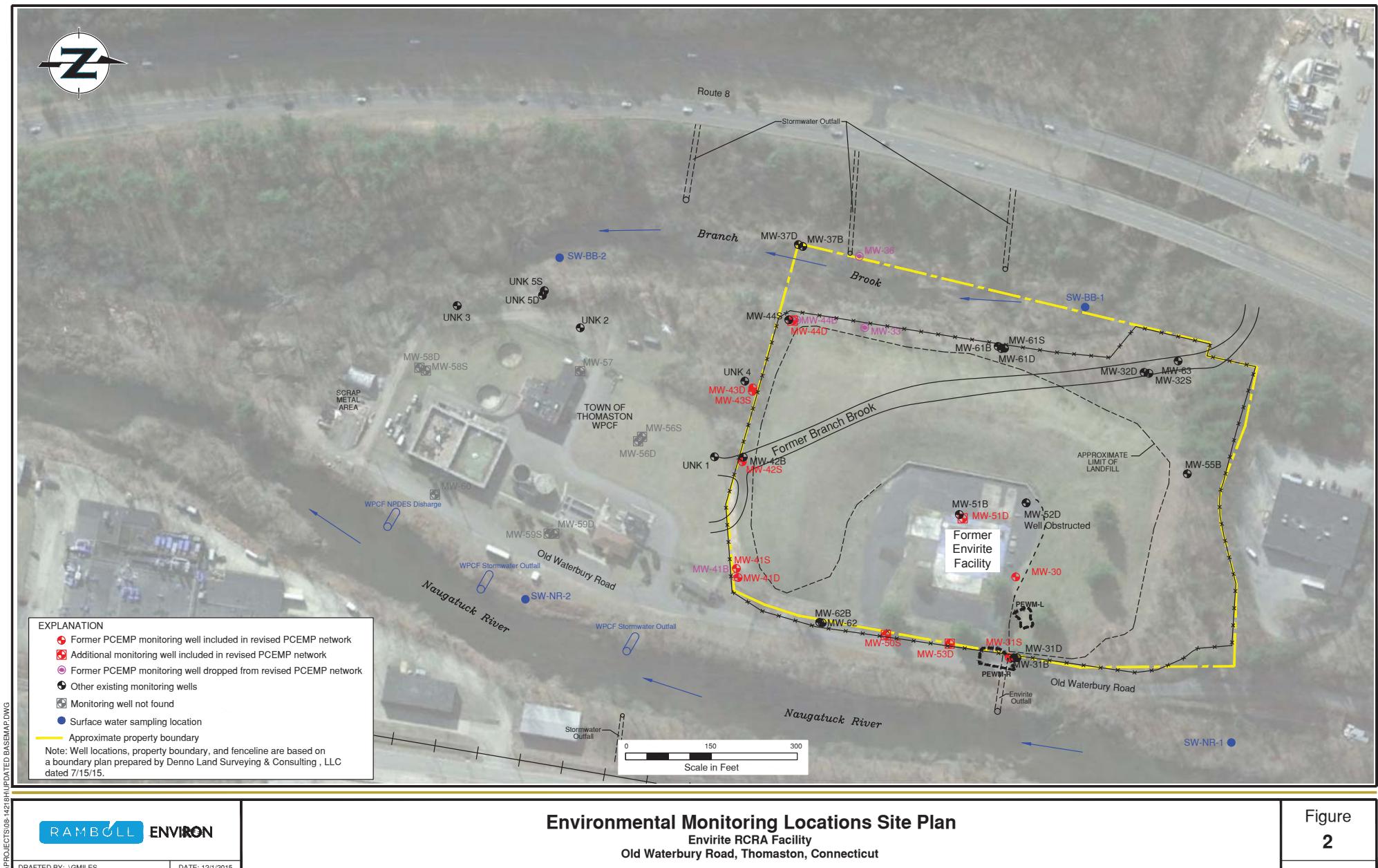
FIGURES

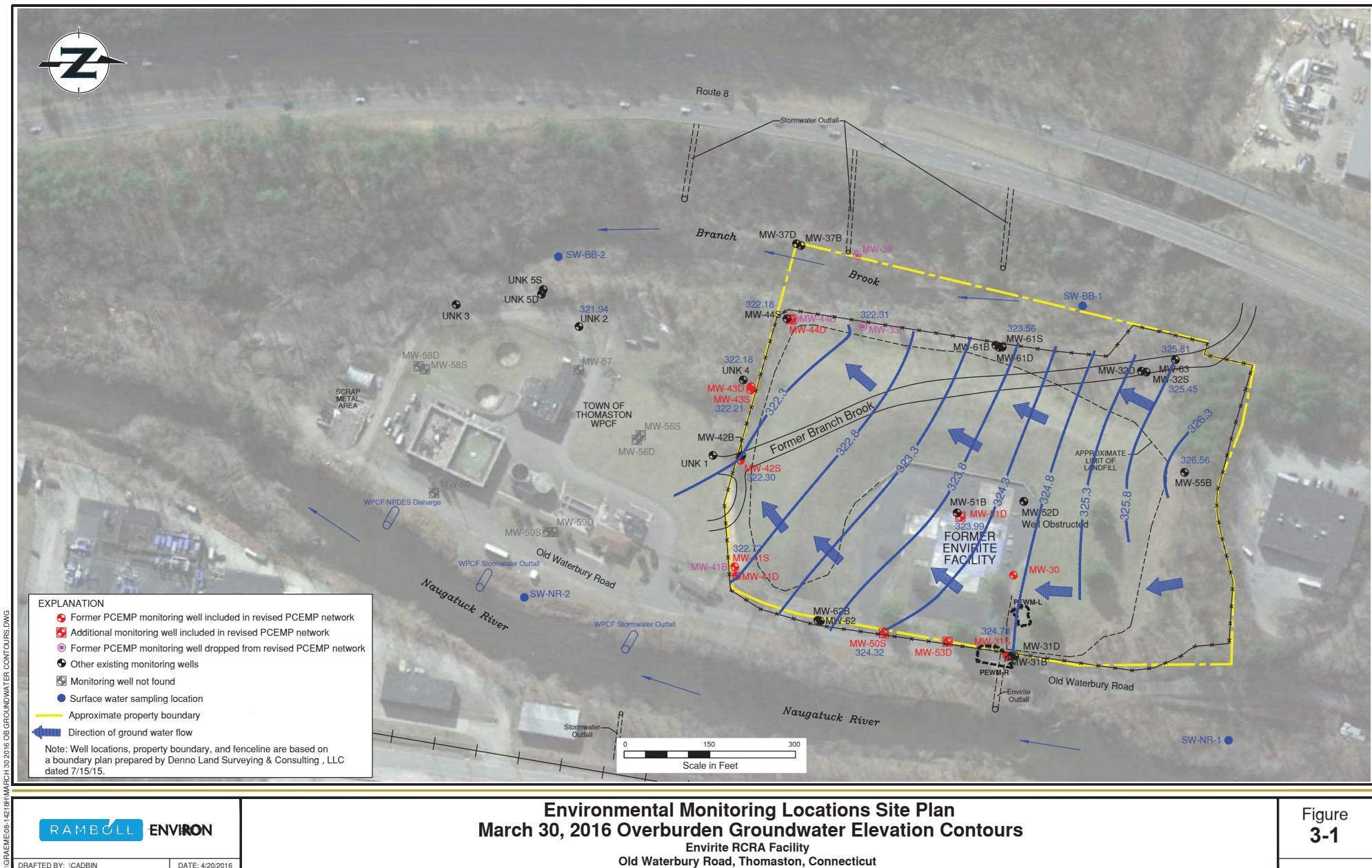


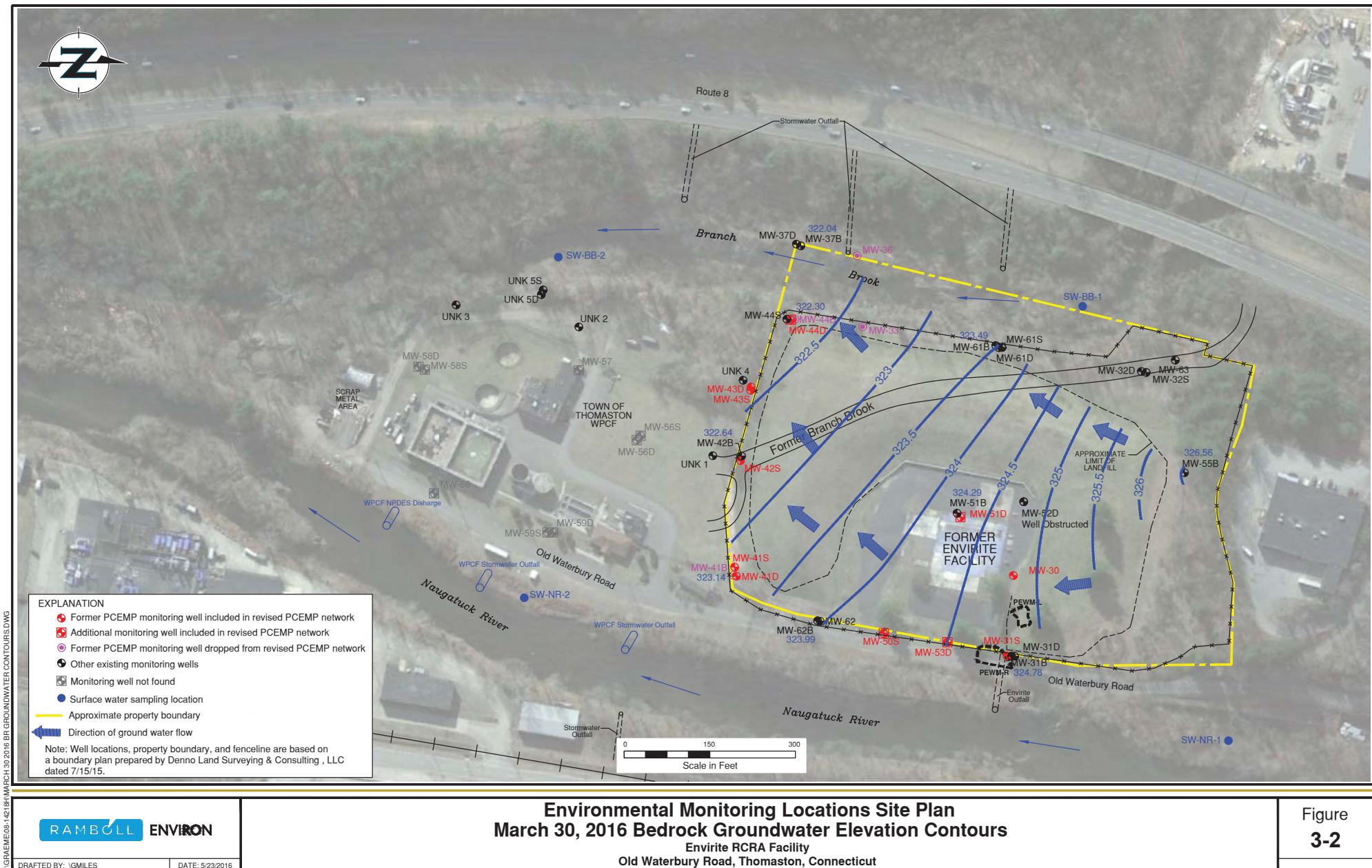
SOURCE: U.S. Geological Survey 7.5 minute (topographic) quadrangles; Thomaston, and Waterbury, Connecticut.

Site Location Map
Envirite RCRA Landfill
Old Waterbury Road, Thomaston, CT

Figure 1







APPENDIX A
**FIELD NOTES, GROUNDWATER ELEVATION GAUGING FORM, EQUIPMENT
CALIBRATION LOGS, AND LOW-FLOW GROUNDWATER SAMPLING FIELD
FORMS**

Envirite RCRA Landfill Thomaston, CT

Case Name

08-14218H 08-14218 I

Case #

3/30/16

Date

Luke Chmielecki and John Underwood

Ramboll Environ Staff Member

SWS and GWS

Subject

0730 on site. Calibrated equipment.

Luke Chmielecki and John Underwood discuss HASP. Focus on water safety and PPE.

John starts opening wells to let them breath before waterlevels.

Luke starts surface water sampling. Check-in at POTW. Duplicate at SW-NR-1.

Small rodent living in UNK-5S. Unable to take waterlevel. Cover is damaged and has never closed completely.

1100 Waterlevels done. John starts at MW-44D.

1200 Surfacewaters done. Purged 1.5 Liters thru filter before collecting equipment blank.

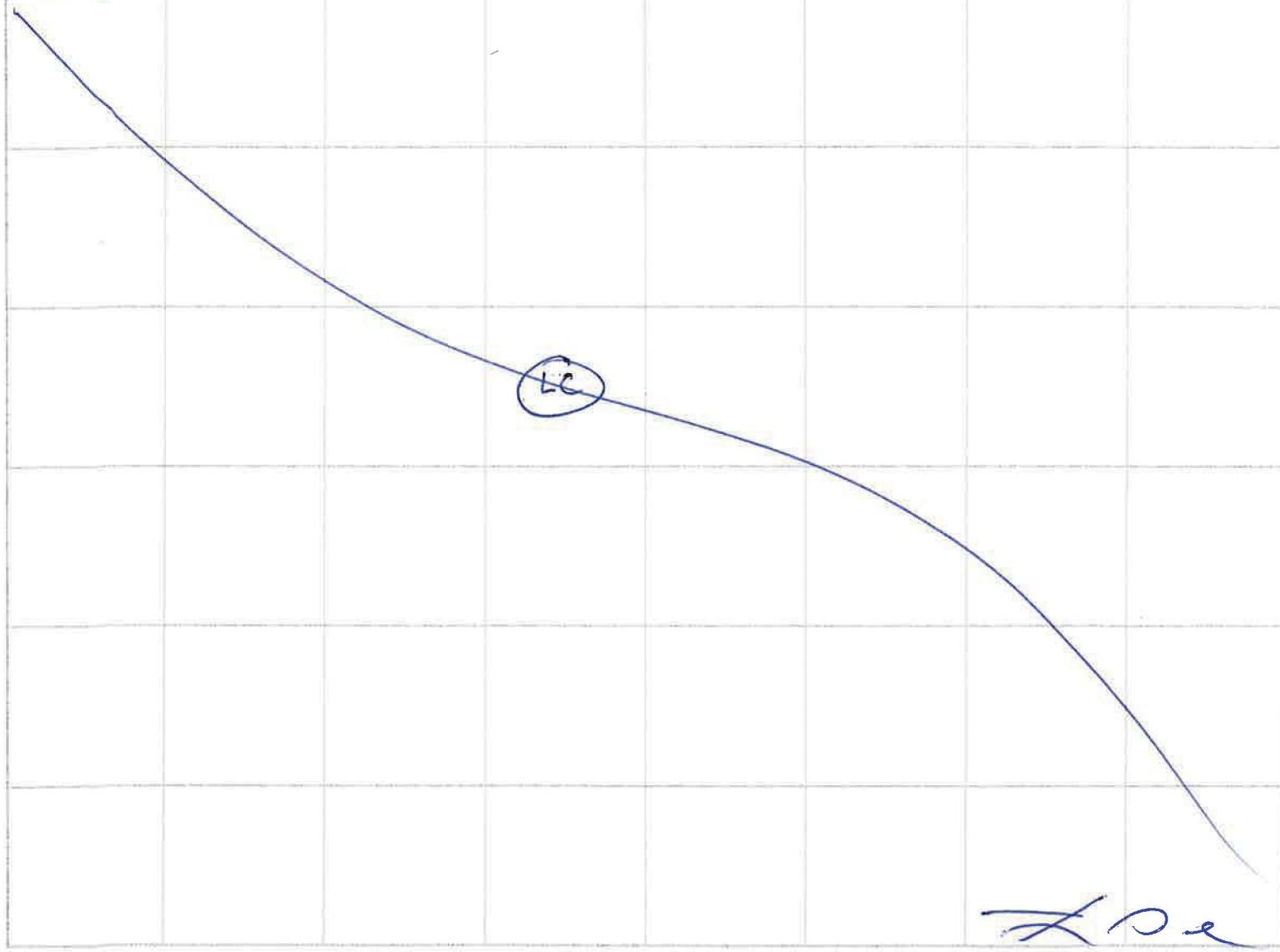
Luke starts at MW-43 couplet.

John moves to MW-41 cluster.

1400 decon pumps.

Luke moves to MW-42S.

Clean-up. Offsite 1630.



LC



GROUNDWATER GAUGING FORM

SITE: ENVIRITE RCRA Landfill

LOCATION: Old Waterbury Road, Thomaston, CT

DATE: 3/30/16

PERSONNEL: John Underwood

Well	Screened Interval (feet bgs)	Type	Time	Depth to Water (ft BTOC)	Total Depth (ft BGS)	Stickup (feet)	Comments
MW-30	38 - 48	OB	1040	17.22			
MW-31S	17 - 27	OB	1055	15.51			Obstruction at 7.80'
MW-31D	26.5 - 31.5	OB	1050	17.14			
MW-31B	37 - 47	BR	1045	17.61			
MW-32S	14 - 24	OB	840	15.21			
MW-32D	24.5 - 39.5	OB	835	15.33			
MW-33	15 - 25	OB	900	18.16			
MW-36	21.5 - 31.5	OB					Tubing and bailer wedged in well/Could not remove.
MW-37D	27 - 32	OB					Mislabelled in the field as MW-37B.
MW-37B	55.7 - 65.7	BR					Mislabelled in the field as MW-37D.
MW-41S	10 - 20	OB	1005	12.01			
MW-41D	17 - 32	OB	1080	11.51			
MW-41B	45 - 55	BR	955	11.47			
MW-42S	22.5 - 32.5	OB	950	18.36			
MW-42B	65 - 75	BR	945	19.51			
MW-43S	22.5 - 32.5	OB	925	18.20			
MW-43D	58 - 68	OB	920	18.46			
MW-44S	17 - 27	OB	915	16.45			
MW-44D	62 - 72	OB	910	17.05			
MW-44B	75 - 85	BR	905	17.99			Hitting something at 18.75'
MW-50S	13.7 - 18.7	OB	1020	13.37			
MW-51D	18.3 - 28.3	OB	1030	16.42			
MW-51B	38.5 - 48.5	BR	1025	15.98			
MW-52D	43.5 - 58.5	OB					Bailer and tubing wedged in well
MW-53D	25 - 40	OB	1035	15.16			
MW-55B	15 - 25	BR	825	14.72			
MW-56S	7 - 12	OB					Well located off Site on POTW property. Never found.
MW-56D	49 - 54	OB					Well located off Site on POTW property. Never found.
MW-57	7 - 12	OB					Well located off Site on POTW property. Never found.
MW-58S	6 - 11	OB					Well located off Site on POTW property. Never found.
MW-58D	68.5 - 75.1	OB					Well located off Site on POTW property. Never found.
MW-59S	5 - 15	OB					Well located off Site in Roadway. Never found.
MW-59D	40 - 50	OB					Well located off Site in Roadway. Never found.
MW-60	4 - 14	OB					Well located off Site in Roadway. Never found.
MW-61S	14 - 20	OB	855	15.78			
MW-61D	42 - 52	OB	850	16.05			
MW-61B	59 - 89	BR	845	16.05			
MW-62	19 - 21	OB	1015	14.67			
MW-62B	28 - 36	BR	1010	14.62			
MW-63	14.5 - 24.5	OB	830	16.88			
UNK-1	UNKNOWN	OB					POTW property. Abandoned.
UNK-2	UNKNOWN	OB					POTW property. Between POTW and Branch Brook.
UNK-3	UNKNOWN	OB					POTW property. Between POTW and Branch Brook.
UNK-4	UNKNOWN	OB	930	17.57			POTW property. By 43 couplet.
UNK-5S	UNKNOWN	OB					POTW property. Newly discovered.
UNK-5D	UNKNOWN	OB					POTW property. Newly discovered.

Indicates well is located across Branch Brook in GA Area

Indicates well is located off Site on Thomaston POTW property and/or adjacent roadway

Indicates waterlevel is unable to be obtained

GROUNDWATER GAUGING FORM

SITE: ENVIRITE RCRA Landfill

LOCATION: Old Waterbury Road, Thomaston, CT

DATE: 3/30/16

PERSONNEL: Luke C.

Well	Screened Interval (feet bgs)	Type	Time	Depth to Water (ft BTOC)	Total Depth (ft BGS)	Stickup (feet)	Comments
MW-30	38 - 48	OB					
MW-31S	17 - 27	OB					Obstruction at 7' 80"
MW-31D	26.5 - 31.5	OB					
MW-31B	37 - 47	BR					
MW-32S	14 - 24	OB					
MW-32D	24.5 - 39.5	OB					
MW-33	15 - 25	OB					
MW-36	21.5 - 31.5	OB		6.37			Tubing and bailer wedged in well/Could not remove.
MW-37D	27 - 32	OB		5.18			Mislabelled in the field as MW-37B.
MW-37B	55.7 - 65.7	BR		5.35			Mislabelled in the field as MW-37D.
MW-41S	10 - 20	OB					
MW-41D	17 - 32	OB					
MW-41B	45 - 55	BR					
MW-42S	22.5 - 32.5	OB					
MW-42B	65 - 75	BR					
MW-43S	22.5 - 32.5	OB					
MW-43D	58 - 68	OB					
MW-44S	17 - 27	OB					
MW-44D	62 - 72	OB					
MW-44B	75 - 85	BR					Hitting something at 18.75'
MW-50S	13.7 - 18.7	OB					
MW-51D	18.3 - 28.3	OB					
MW-51B	38.5 - 48.5	BR					
MW-52D	43.5 - 58.5	OB					Bailer and tubing wedged in well.
MW-53D	25 - 40	OB					
MW-55B	15 - 25	BR					
MW-56S	7 - 12	OB					Well located off Site on POTW property. Never found.
MW-56D	49 - 54	OB					Well located off Site on POTW property. Never found.
MW-57	7 - 12	OB					Well located off Site on POTW property. Never found.
MW-58S	6 - 11	OB					Well located off Site on POTW property. Never found.
MW-58D	68.5 - 75.1	OB					Well located off Site on POTW property. Never found.
MW-59S	5 - 15	OB					Well located off Site in Roadway. Never found.
MW-59D	40 - 50	OB					Well located off Site in Roadway. Never found.
MW-60	4 - 14	OB					Well located off Site in Roadway. Never found.
MW-61S	14 - 20	OB					
MW-61D	42 - 52	OB					
MW-61B	59 - 69	BR					
MW-62	19 - 21	OB					
MW-62B	26 - 36	BR					
MW-63	14.5 - 24.5	OB					
UNK-1	UNKNOWN	OB					POTW property. Abandoned.
UNK-2	UNKNOWN	OB		12.67			POTW property. Between POTW and Branch Brook.
UNK-3	UNKNOWN	OB		9.05			POTW property. Between POTW and Branch Brook
UNK-4	UNKNOWN	OB					POTW property. By 43 couplet.
UNK-5S	UNKNOWN	OB		NM			POTW property. Newly discovered.
UNK-5D	UNKNOWN	OB		5.73			POTW property. Newly discovered.

Indicates well is located across Branch Brook in GA Area

Indicates well is located off Site on Thomaston POTW property and/or adjacent roadway

Indicates waterlevel is unable to be obtained

Rodent.

LOW FLOW GROUNDWATER SAMPLING FIELD FORM

Site: Envirite Thomaston
 Project No.: 08-M218H
 Date: 3/30/16
 Weather: Sunny, 50°F

Well ID: MW-44D
 Sample ID: MW-44D/20160330
 Sampler: J.Underwood
 Signature: John Underwood

Well Condition Observations			
Protective Casing:	<u>good</u>		
Lock:	<u>✓</u>		
Label:	<u>✓</u>		
Surface Seal:			
PVC Well Casing:	<u>✓</u>		

Well Volume Calculations			
Well Diameter (in.):	<u>2</u>		
Depth to Water (ft.):	<u>13.845</u>		
Total Depth (ft.):	<u>72</u>		
Well Volume (gal.):			

Pump Start: 1150

Time	Throttle SETTING (Feet H ₂ O)	Time Refill/ Discharge	Cycles per Minute	Discharge Volume/Cycle (mL.)	FLOW RATE (mL/min)	DEPTH TO WATER (feet)	pH (SU)	TEMP (°C)	SPECIFIC CONDUCTANCE (µS/cm)	DISSOLVED OXYGEN (mg/L)	ORP (mV)	TURBIDITY (NTU)	TOTAL PURGE VOLUME (liters or gallons)
1200	10/5	4	50	200	17.05	6.09	9.37	1804	1.64	378.1	0.69	2.0	
1205	10/5	4	40	160	17.05	6.07	9.51	2012	0.40	392.6	0.41	2.8	
1210	10/5	4	40	160	17.05	6.07	9.56	2026	0.31	398.6	0.35	3.4	
1215	10/5	4	40	160	17.05	6.07	9.59	2030	0.25	401.7	0.11	4.4	
1220	10/5	4	40	160	17.05	6.07	9.61	2028	0.25	403.7	0.00	5.2	
<i>John Underwood</i>													
<i>John Underwood</i>													
Stabilization Criteria				100 - 400 mL/min	Drawdown < 0.3'	+/- 0.1 units	3%	3%	10% > 0.5 mg/l or 3 consecutive readings < 0.5 mg/l	+/- 10 mV	10% > 5 NTU or 3 consecutive readings < 5 NTU		
Stabilization Achieved (Y/N)				Y	Y	Y	X	Y	Y	X	X	Y	

Sampling/Purging Equipment	
Water Level Meter:	<u>750' Soil test</u>
pH/S.C./Dissolved Oxygen/ORP:	<u>YSI</u>
Turbidity:	<u>Micro TPW</u>
Pump:	<u>Bladder</u>
Intake Depth (feet below PVC):	<u>67</u>
Tubing:	<u>1/4" Poly</u>

Note: During well purging, monitor indicator field parameters (turbidity, temperature, specific conductance, pH, ORP, DO) at a minimum frequency of 3-5 minute intervals or greater. The pump's flow rate must be able to "turn over" at least one (1) flow-through-cell volume between measurements (for a 250 mL flow-through-cell with a flow rate of 50 mL/min., the monitoring frequency would be every five minutes; for a 500 mL flow-through-cell it would be every ten minutes). If the cell volume cannot be replaced in the five minute interval, then the time between measurements must be increased accordingly.

Comments: Total Purge Volume = 6.0 L

Laboratory Analyses/Containers			
Container	Preservative	#	Analysis
See Chart of			Custody

SAMPLE COLLECTION TIME	START	END
	<u>1225</u>	<u>1235</u>

RAMBOLL ENVIRON

LOW FLOW GROUNDWATER SAMPLING FIELD FORM

Site: Thomaston Envirite
 Project No.: 08-14218H
 Date: 3/30/16
 Weather: 55°F Sunny

Well ID: MW-43S
 Sample ID: MW-43S/20160330
 Sampler: Luke C.
 Signature: KOL

Well Condition Observations									
Protective Casing:	<u>Good</u>								
Lock:									
Label:									
Surface Seal:									
PVC Well Casing:									

Well Volume Calculations	
Well Diameter (in.):	<u>2</u>
Depth to Water (ft.):	<u>18.20</u>
Total Depth (ft.):	<u>33.63</u>
Well Volume (gal.):	<u>62</u>

Pump Start: 1230

Time	Throttle SETTING (Feet H ₂ O)	Time Refill/ Discharge	Cycles per Minute	Discharge Volume/Cycle (mL.)	FLOW RATE (mL./min)	DEPTH TO WATER (feet)	pH (S.I.)	TEMP (°C)	SPECIFIC CONDUCTANCE (µS/cm)	DISSOLVED OXYGEN (mg/l.)	ORP (mV)	TURBIDITY (NTU)	TOTAL PURGE VOLUME (liters or gallons)
1235		<u>10/5</u>	<u>4</u>	<u>50</u>	<u>200</u>	<u>18.20</u>	<u>6.18</u>	<u>12.23</u>	<u>1286</u>	<u>4.12</u>	<u>29.2</u>	<u>2.84</u>	<u>1</u>
1240		<u>10/5</u>	<u>4</u>	<u>50</u>	<u>200</u>	<u>18.21</u>	<u>6.10</u>	<u>12.01</u>	<u>1261</u>	<u>2.96</u>	<u>40.0</u>	<u>1.96</u>	<u>2</u>
1245		<u>10/5</u>	<u>4</u>	<u>50</u>	<u>200</u>	<u>18.21</u>	<u>6.07</u>	<u>11.85</u>	<u>1243</u>	<u>2.41</u>	<u>46.4</u>	<u>1.42</u>	<u>3</u>
1250		<u>10/5</u>	<u>4</u>	<u>50</u>	<u>200</u>	<u>18.21</u>	<u>6.05</u>	<u>11.96</u>	<u>1241</u>	<u>2.14</u>	<u>51.8</u>	<u>1.33</u>	<u>4</u>
1255		<u>10/5</u>	<u>4</u>	<u>50</u>	<u>200</u>	<u>18.21</u>	<u>6.02</u>	<u>11.97</u>	<u>1237</u>	<u>2.04</u>	<u>56.3</u>	<u>1.27</u>	<u>5</u>
1300		<u>10/5</u>	<u>4</u>	<u>50</u>	<u>200</u>	<u>18.21</u>	<u>6.02</u>	<u>11.98</u>	<u>1235</u>	<u>2.01</u>	<u>57.7</u>	<u>1.22</u>	<u>6</u>
Stabilization Criteria				100 - 400 mL/min	Drawdown < 0.3'	+/- 0.1 units	3%	3%	10% > 0.5 mg/l, or 3 consecutive readings < 0.5 mg/l	+/- 10 mV	10% > 5 NTU or 3 consecutive readings < 5 NTU		
Stabilization Achieved (Y/N)				<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>	

Sampling/Purging Equipment	
Water Level Meter:	<u>Salinst</u>
pH/S.C./Dissolved Oxygen/ORP:	<u>YSI</u>
Turbidity:	<u>Micro TFW</u>
Pump:	<u>Bladder</u>
Blade Depth (feet below PVC):	<u>27.5</u>
Tubing:	<u>1/4" Poly</u>

Note: During well purging, monitor indicator field parameters (turbidity, temperature, specific conductance, pH, ORP, DO) at a minimum frequency of 3-5 minute intervals or greater. The pump's flow rate must be able to "turn over" at least one (1) flow-through-cell volume between measurements (for a 250 mL flow-through-cell with a flow rate of 50 mL/min., the monitoring frequency would be every five minutes; for a 500 mL flow-through-cell it would be every ten minutes). If the cell volume cannot be replaced in the five minute interval, then the time between measurements must be increased accordingly.

Laboratory Analyses/Containers			
Container	Preservative	#	Analysis
			<u>See COC</u>

SAMPLE COLLECTION TIME	START	END
	<u>1200</u>	<u>1300</u>

Comments: Total Purge Volume = 6 L

RAMBOLL ENVIRON

LOW FLOW GROUNDWATER SAMPLING FIELD FORM

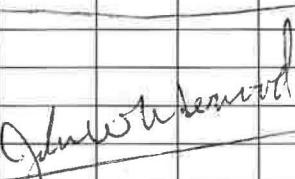
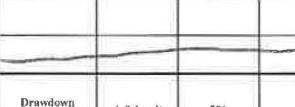
Site: ~~Mt~~ Enviro Thermo
Project No.: 06-14218H
Date: 3/30/16
Weather: Sunny 55°F

Well ID: MW-41D/2016
Sample ID: MW-41D/20160330
Sampler: J. Underwood
Signature: John Underwood

Well Condition Observations	
Protective Casing:	good
Lock:	
Label:	(P)
Surface Seal:	
PVC Well Casing:	✓

Well Volume Calculations	
Well Diameter (in.):	21"
Depth to Water (ft.):	11.560
Total Depth (ft.):	32
Well Volume (gal.):	

Pump Start: 13,20

Time	Throttle SETTING (Feet H ₂ O)	Time Refill/ Discharge	Cycles per Minute	Discharge Volume/Cycle (mL.)	FLOW RATE (mL/min)	DEPTH TO WATER (feet)	pH (SU)	TEMP (°C)	SPECIFIC CONDUCTANCE (µS/cm)	DISSOLVED OXYGEN (mg/L)	ORP (mV)	TURBIDITY (NTU)	TOTAL PURGE VOLUME (liters or gallons)
1325	10/5	4	40	160	11.55	6.21	12.22	454	0.31	349.9	1.09	0.8	
1330	10/5	4	90	160	11.55	6.16	12.20	464	0.20	350.9	0.24	1.6	
1335	10/5	4	50	200	11.55	6.15	12.30	462	0.15	351.5	0.16	3.6	
1340	10/5	4	40	160	11.55	6.15	12.36	468	0.14	351.0	0.00	3.4	
													
													
													
Stabilization Criteria				100 - 400 mL/min	Drawdown ≤ 0.3"	+/- 0.1 units	3%	3%	10% > 0.5 mg/L or 3 consecutive readings < 0.5 mg/L	+/- 10 mV	10% > 5 NTU or 3 consecutive readings < 5 NTU		
Stabilization Achieved (Y/N)				Y	Y	Y	X	Y	Y	X	Y	3.4	

Sampling/Purging Equipment	
Water Level Meter:	Solinst
pH/S.C./Dissolved Oxygen/ORP:	YSI
Turbidity:	Microturb
Pump:	Bladder
Intake Depth (feet below PVC):	24.5
Tubing:	Vinyl

Laboratory Analyses/Containers			
Container	Preservative	#	Analysis
See Chain of custody			

Note: During well purging, monitor indicator field parameters (turbidity, temperature, specific conductance, pH, ORP, DO) at a minimum frequency of 3-5 minute intervals or greater. The pump's flow rate must be able to "turn over" at least one (1) flow-through-cell volume between measurements (for a 250 mL flow-through-cell with a flow rate of 50 mL/min., the monitoring frequency would be every five minutes; for a 50 mL flow-through-cell it would be every ten minutes). If the cell volume cannot be replaced in the five minute interval, then the time between measurements must be increased accordingly.

Comments: Total Buoy Volume = 3.46

	START	END
SAMPLE COLLECTION TIME	1345	1355

LOW FLOW GROUNDWATER SAMPLING FIELD FORM

Site: Thomaston Envirite
Project No.: 08-14218H
Date: 3/30/15
Weather: 55°F Sunny

Well ID: MW-43D
Sample ID: MW-43D/20160330
Sampler: Luke C.
Signature: 

Well Condition Observations	
Protective Casing:	Good
Lock:	
Label:	(L)
Surface Seal:	
PVC Well Casing:	↓

Well Volume Calculations	
Well Diameter (in.):	2
Depth to Water (ft.):	18.47
Total Depth (ft.):	69.65
Well Volume (gal.):	400

Pump Start: **1315**

Sampling/Purging Equipment	
Water Level Meter:	Solinst
pH/S.C./Dissolved Oxygen/ORP:	YSI
Turbidity:	Micro TPW
Pump:	Bladder
Intake Depth (feet below PVC):	64.65
Tubing:	1/4" Poly

Laboratory Analyses/Containers			
Container	Preservative	#	Analysis
See COC			

Note: During well purging, monitor indicator field parameters (turbidity, temperature, specific conductance, pH, ORP, DO) at a minimum frequency of 3-5 minute intervals or greater. The pump's flow rate must be able to "turn over" at least one (1) flow-through-cell volume between measurements (for a 250 mL flow-through-cell with a flow rate of 50 mL/min., the monitoring frequency would be every five minutes; for a 500 mL flow-through-cell it would be every ten minutes). If the cell volume cannot be replaced in the five minute interval, then the time between measurements must be increased accordingly.

Comments: Total Purge Volume = 4.8 l

SAMPLE COLLECTION TIME	START	END
	1345	1400

see coc

RAMBOLL ENVIRON

LOW FLOW GROUNDWATER SAMPLING FIELD FORM

Site: EnviroTech Thurmonton
 Project No.: 08-1421BH
 Date: 3/26/16
 Weather: Sunny 55°F

Well ID: MW-415
 Sample ID: MW-415/20160330
 Sampler: John Underwood
 Signature: John Underwood

Well Condition Observations				
Protective Casing:	<i>good</i>			
Lock:	<i>open</i>			
Label:				
Surface Seal:				
PVC Well Casing:				

Well Volume Calculations	
Well Diameter (in.):	2
Depth to Water (ft.):	12.01
Total Depth (ft.):	20
Well Volume (gal.):	

Pump Start: 1435

Time	Throttle SETTING (Feet H ₂ O)	Time Refill/ Discharge	Cycles per Minute	Discharge Volume/Cycle (mL)	FLOW RATE (mL/min)	DEPTH TO WATER (feet)	pH (SU)	TEMP (°C)	SPECIFIC CONDUCTANCE (µS/cm)	DISSOLVED OXYGEN (mg/L)	ORP (mV)	TURBIDITY (NTU)	TOTAL PURGE VOLUME (liters/gallon)
1440	10/5	4	40	160	12.05	6.04	12.24	329	3.63	236.0	42.0	0.8	
1445	10/5	4	40	160	12.05	6.01	12.19	329	2.86	229.1	22.56	1.6	
1450	10/5	4	40	160	12.05	5.97	11.80	329	2.31	225.1	23.28	2.4	
1455	10/5	4	40	160	12.05	5.98	11.78	329	2.10	221.5	16.55	3.2	
1500	10/5	4	40	160	12.05	5.98	11.63	329	2.02	219.5	1.25	4.0	
1505	10/5	4	40	160	12.05	5.97	11.71	329	1.97	216.5	0.90	4.8	
1510	10/5	4	40	160	12.05	5.97	11.76	329	1.93	215.9	0.36	5.6	
<i>John Underwood</i>													
Stabilization Criteria				100 - 400 mL/min	Drawdown < 0.3"	+/- 0.1 units	3%	3%	10% > 0.5 mg/L or 3 consecutive readings < 0.5 mg/L	+/- 10 mV	10% > 5 NTU or 3 consecutive readings < 5 NTU		
Stabilization Achieved (Y/N)				Y	Y	Y	Y	Y	Y	Y	Y		

Sampling/Purging Equipment	
Water Level Meter:	<i>Solinst</i>
pH/S.C./Dissolved Oxygen/ORP:	<i>YSI</i>
Turbidity:	<i>Micro-taw</i>
Pump:	<i>Blaender</i>
Intake Depth (feet below PVC):	<i>15'</i>
Tubing:	<i>1/4" PTFE</i>

Note: During well purging, monitor indicator field parameters (turbidity, temperature, specific conductance, pH, ORP, DO) at a minimum frequency of 3-5 minute intervals or greater. The pump's flow rate must be able to "turn over" at least one (1) flow-through-cell volume between measurements (for a 250 mL flow-through-cell with a flow rate of 50 mL/min., the monitoring frequency would be every five minutes; for a 500 mL flow-through-cell it would be every ten minutes). If the cell volume cannot be replaced in the five minute interval, then the time between measurements must be increased accordingly.

Laboratory Analyses/Containers			
Container	Preservative	#	Analysis
<i>See chart</i>		<i>06</i>	<i>Custom</i>

SAMPLE COLLECTION TIME	START	END
	<i>1515</i>	<i>1525</i>

Comments: Total Purge Volume = 5.6 L

RAMBOLL ENVIRON

LOW FLOW GROUNDWATER SAMPLING FIELD FORM

Site: Thomaston Enviro
 Project No.: 08-14218-H
 Date: 3/30/16
 Weather: 55°F Sunny

Well ID: MW-42S
 Sample ID: MW-42S/20160330
 Sampler: Luke C.
 Signature: L.C.

Well Condition Observations	
Protective Casing:	<u>Good</u>
Lock:	
Label:	(L)
Surface Seal:	
PVC Well Casing:	↓

Well Volume Calculations	
Well Diameter (in.):	<u>2</u>
Depth to Water (ft.):	<u>18.87</u>
Total Depth (ft.):	<u>35.28</u>
Well Volume (gal.):	<u>27.64</u>

Time	Throttle SETTING (Feet H ₂ O)	Time Refill/ Discharge	Cycles per Minute	Discharge Volume/Cycle (mL.)	FLOW RATE (mL/min)	DEPTH TO WATER (feet)	pH (SU)	TEMP (°C)	SPECIFIC CONDUCTANCE (µS/cm)	DISSOLVED OXYGEN (mg/L)	ORP (mV)	TURBIDITY (NTU)	TOTAL PURGE VOLUME (liters or gallons)
1500	10/5	4	50	200	18.90	6.21	12.49	530	5.61	158.9	4.48	1	
1505	10/5	4	50	200	18.91	6.20	12.47	532	5.02	156.7	4.02	2	
1510	10/5	4	50	200	18.92	6.19	12.44	535	4.28455	155.6	3.41	3	
1515	10/5	4	50	200	18.92	6.19	12.38	536	4.52	154.4	3.01	4	
1520	10/5	4	50	200	18.92	6.18	12.40	537	4.46	153.9	2.55	5	
1525	10/5	4	50	200	18.92	6.18	12.41	538	4.44	153.1	2.38	6	
<hr/>													
Stabilization Criteria				100 - 400 mL/min	Drawdown < 0.3'	+/- 0.4 units	3%	3%	10% > 0.5 mg/L or 3 consecutive readings < 0.5 mg/L	+/- 10 mV	10% > 5 NTU or 3 consecutive readings < 5 NTU		
Stabilization Achieved (Y/N)				Y	Y	Y	Y	Y	Y	Y	Y		

Sampling/Purging Equipment	
Water Level Meter:	<u>Solinst</u>
pH/S/C/Dissolved Oxygen/ORP:	<u>YSI</u>
Turbidity:	<u>MicroTPW</u>
Pump:	<u>Bladder</u>
Intake Depth (feet below PVC):	<u>27.5</u>
Tubing:	<u>1/4" Poly</u>

Note: During well purging, monitor indicator field parameters (turbidity, temperature, specific conductance, pH, ORP, DO) at a minimum frequency of 3-5 minute intervals or greater. The pump's flow rate must be able to "turn over" at least one (1) flow-through-cell volume between measurements (for a 250 mL flow-through-cell with a flow rate of 50 mL/min., the monitoring frequency would be every five minutes; for a 500 mL flow-through-cell it would be every ten minutes). If the cell volume cannot be replaced in the five minute interval, then the time between measurements must be increased accordingly.

Comments: Total Purge Volume = 6 L

Laboratory Analyses/Containers			
Container	Preservative	#	Analysis
			<u>See COC</u>

SAMPLE COLLECTION TIME	START	END
	<u>1525</u>	<u>(L)</u>

RAMBOLL ENVIRON

Envirite RCRA Landfill Thomaston CT

Case Name

48-14218H 08-14218 I

Case #

3/31/16

Date

Luke Chmielecki and John Underwood

Ramboll Environ Staff Member

GWS

Subject

0730 on site. Calibrated equipment.

Luke and John discuss HASP with focus on PPE.

Luke starts at MW-51D. Duplicated.

John starts at MW-50S.

Luke moves to MW-30

John moves to MW-53D.

Luke cleans up site and loads equipment.

John moves to MW-31S. Turbidity over 5 NTUs. collected a filtered sample too (.45 micron).

1420 courier picks up samples.

1430 offsite.



LOW FLOW GROUNDWATER SAMPLING FIELD FORM

Site: Enviroite Thomaston
 Project No.: 08-14218H
 Date: 3/31/16
 Weather: Sunny 50°F

Well ID: MW-505
 Sample ID: MW-505/20160331
 Sampler: John Underwood
 Signature: JohnUnderwood

Well Condition Observations			
Protective Casing:	gravel	Lock:	
Label:		Surface Seal:	
PVC Well Casing:			

Well Volume Calculations	
Well Diameter (in.):	2
Depth to Water (ft.):	13.42
Total Depth (ft.):	13.7
Well Volume (gal.):	

Time	Throttle SETTING (Feet H ₂ O)	Time Refill/ Discharge	Cycles per Minute	Discharge Volume/Cycle (mL)	FLOW RATE (mL/min)	DEPTH TO WATER (feet)	pH (SI)	TEMP (°C)	SPECIFIC CONDUCTANCE (µS/cm)	DISSOLVED OXYGEN (mg/L)	ORP (mV)	TURBIDITY (NTU)	TOTAL PURGE VOLUME (liters or gallons)
900	10/5	4	40	160	13.42	5.14	11.42	1102	0.48	395.9	4.87	0.8	
905	10/5	4	40	160	13.42	5.11	11.43	1097	0.28	418.8	4.78	1.6	
910	10/5	4	40	160	13.42	5.11	11.43	1091	0.20	432.1	4.17	2.4	
915	10/5	4	40	160	13.42	5.11	11.45	1086	0.17	438.7	4.01	3.6	
920	10/5	4	40	160	13.42	5.08	11.47	1084	0.17	441.8	3.86	4.0	
<i>JohnUnderwood</i>													
Stabilization Criteria				100 - 400 mL/min	Drawdown, < 0.3'	+/- 0.1 units	3%	3%	10% > 0.5 mg/L or 3 consecutive readings < 0.5 mg/L	+/- 10 mV	10% > 5 NTU or 3 consecutive readings < 5 NTU		
Stabilization Achieved (Y/N)				Y	Y	Y	Y	Y	Y	Y	Y	Y	4.4

Sampling/Purging Equipment	
Water Level Meter:	Solisnt
pH/S.C./Dissolved Oxygen/ORP:	YSI
Turbidity:	Micro TFW
Pump:	Bladder
Intake Depth (feet below PVC):	16.2
Tubing:	VUL tubing

Laboratory Analyses/Containers			
Container	Preservative	#	Analysis
See chain of custody			

Note: During well purging, monitor indicator field parameters (turbidity, temperature, specific conductance, pH, ORP, DO) at a minimum frequency of 3-5 minute intervals or greater. The pump's flow rate must be able to "turn over" at least one (1) flow-through-cell volume between measurements (for a 250 mL flow-through-cell with a flow rate of 50 mL/min., the monitoring frequency would be every five minutes; for a 500 mL flow-through-cell it would be every ten minutes). If the cell volume cannot be replaced in the five minute interval, then the time between measurements must be increased accordingly.

SAMPLE COLLECTION TIME	START	END
	925	935

Comments: Total Purge Volume = 4.4 L

RAMBOLL ENVIRON

LOW FLOW GROUNDWATER SAMPLING FIELD FORM

Site: Thomaston Enviroite
Project No.: 08-14218H
Date: 3/31/16
Weather: 55°F Sunny, Windy

Well ID: MW-51D
Sample ID: MW-51D/20160331
Sampler: Luke C.
Signature: 

Well Condition Observations	
Protective Casing:	Good
Lock:	
Label:	(L)
Surface Seal:	
PVC Well Casing:	

Well Volume Calculations	
Well Diameter (in.):	2
Depth to Water (ft.):	16.45
Total Depth (ft.):	28.46
Well Volume (gal.):	330

Pump Start: D905

Sampling/Purging Equipment	
Water Level Meter:	Solinst
pH/S.C./Dissolved Oxygen/ORP:	YSI
Turbidity:	Micro TPW
Pump:	Bladder
Intake Depth (feet below PVC):	23.50
Tubing:	Welded

Note: During well purging, monitor indicator field parameters (turbidity, temperature, specific conductance, pH, ORP, DO) at a minimum frequency of 3-5 minute intervals or greater. The pump's flow rate must be able to "turn over" at least one (1) flow-through cell volume between measurements. For a 500 mL flow-through cell with a flow rate of 50 mL/min., the monitoring frequency would be every five minutes; for a 500 mL flow-through cell it would be every ten minutes). If the cell volume cannot be replaced in the five minute interval, then the time between measurements must be increased accordingly.

SAMPLE COLLECTION TIME	START	END
	10:30	11:00

Comments: Total Purge Volume = 6 L
Duplicated.

RAMBOLL ENVIRON

LOW FLOW GROUNDWATER SAMPLING FIELD FORM

Site: Enviro Thomaston
 Project No.: 08-142184
 Date: 3/31/16
 Weather: Sunny 55°F

Well ID: MW-53D
 Sample ID: MW-53D/20160331
 Sampler: John Underwood
 Signature: John Underwood

Well Condition Observations			
Protective Casing:	good		
Lock:			
Label:			
Surface Seal:			
PVC Well Casing:			

Well Volume Calculations	
Well Diameter (in.):	2
Depth to Water (ft.):	15.24
Total Depth (ft.):	40
Well Volume (gal.):	

Pump Start: 1005

Time	Tarotle SETTING (Feet H ₂ O)	Time Refill/ Discharge	Cycles per Minute	Discharge Volume/Cycle (mL)	FLOW RATE (mL/min)	DEPTH TO WATER (feet)	pH (SU)	TEMP (°C)	SPECIFIC CONDUCTANCE (nS/cm)	DISSOLVED OXYGEN (mg/L)	ORP (mV)	TURBIDITY (NTU)	TOTAL PURGE VOLUME (liters or gallons)
10:0		10/5	4	40	160	15.24	6.15	12.92	779	1.88	421.4	1.33	0.8
10:15		10/5	4	40	160	15.24	6.08	12.82	861	0.94	422.8	0.00	1.6
10:20		10/5	4	40	160	15.24	6.07	12.91	894	0.78	421.4	0.00	2.4
10:25		10/5	4	40	160	15.24	6.06	12.94	915	0.61	421.4	0.00	3.2
10:30		10/5	4	40	160	15.24	6.06	12.95	930	0.62	418.9	0.00	4.0
10:35		10/5	4	40	160	15.24	6.05	13.04	936	0.57	416.0	0.00	4.8
<i>Graph Below</i>													
Stabilization Criteria				100 - 400 mL/min	Drawdown < 0.3'	+/- 0.1 units	3%	3%	10% > 0.5 mg/L or 3 consecutive readings < 0.5 mg/L	+/- 10 mV	10% > 5 NTU or 3 consecutive readings < 5 NTU		
Stabilization Achieved (Y/N)				160	Y	X	Y	Y	X	X	Y	Y	4.8

Sampling/Purging Equipment			
Water Level Meter:	Solinst		
pH/S.C./Dissolved Oxygen/ORP:	VSI		
Turbidity:	MICROTOW		
Pump:	Burrard		
Intake Depth (feet below PVC):	32.5		
Tubing:	1/4" Poly		

Note: During well purging, monitor indicator field parameters (turbidity, temperature, specific conductance, pH, ORP, DO) at a minimum frequency of 3-5 minute intervals or greater. The pump's flow rate must be able to "turn over" at least one (1) flow-through-cell volume between measurements (For a 250 mL flow-through-cell with a flow rate of 50 mL/s/min., the monitoring frequency would be every five minutes; for a 500 mL flow-through-cell it would be every ten minutes). If the cell volume cannot be replaced in the five minute interval, then the time between measurements must be increased accordingly.

Comments: Total Purge Volume = 4.8 liters

Laboratory Analyses/Containers			
Container	Preservative	#	Analysis
See Chain of Custody			

SAMPLE COLLECTION TIME	START	END
	1040	1050

RAMBOLL ENVIRON

LOW FLOW GROUNDWATER SAMPLING FIELD FORM

Site: Thomaston Envirite
Project No.: 08-14218H
Date: 3/31/16
Weather: 55°F Sunny, Windy

Well ID: MW-30
Sample ID: MW-30/20160331
Sampler: Luke C.
Signature: L.C.

Well Condition Observations	
Protective Casing:	Good
Lock:	+
Label:	(b)
Surface Seal:	
PVC Well Casing:	

Well Volume Calculations	
Well Diameter (in.):	15
Depth to Water (ft.):	17.26
Total Depth (ft.):	44.77
Well Volume (gal.):	600

Sampling/Purging Equipment	
Water Level Meter:	Solinst
pH/S.C./Dissolved Oxygen/ORP:	YSI
Turbidity:	microTPW
Pump:	Micro bladde
Intake Depth (feet below PVC):	40
Tubing:	1/2" + 3/8" P.E.

Note: During well purging, monitor indicator field parameters (turbidity, temperature, specific conductance, pH, ORP, DO) at a minimum frequency of 3-5 minute intervals or greater. The pump's flow rate must be able to "turn over" at least one (1) flow-through-cell volume between measurements (for a 250 mL flow-through-cell with a flow rate of 50 mL/min., the monitoring frequency would be every five minutes; for a 500 mL flow-through-cell it would be every ten minutes). If the cell volume cannot be replaced in the five minute interval, then the time between measurements must be increased accordingly.

	START	END
SAMPLE COLLECTION TIME	1315	

Comments: Total Purge Volume = 1150 mL
* Unable to achieve 100-400 mL/min. Micro bladder.

RAMBOLL ENVIRON

LOW FLOW GROUNDWATER SAMPLING FIELD FORM

Site: Envirite Thurmonton
 Project No.: 08-14218H
 Date: 3/31/10
 Weather: Partly Cloudy 55°F

Well ID: MW-31S
 Sample ID: MW-31S/20160331
 Sampler: John Underwood
 Signature: John Underwood

Well Condition Observations				
Protective Casing:	good			
Lock:	good			
Label:	good			
Surface Seal:	good			
PVC Well Casing:				

Well Volume Calculations	
Well Diameter (in.):	1
Depth to Water (ft.):	15.47
Total Depth (ft.):	27
Well Volume (gal.):	

Pump Start: 1110

Time	Throttle SETTING (Feet H ₂ O)	Time Refill/ Discharge	Cycles per Minute	Discharge Volume/Cycle (mL.)	FLOW RATE (mL./min)	DEPTH TO WATER (feet)	pH (SI)	TEMP (°C)	SPECIFIC CONDUCTANCE (µS/cm)	DISSOLVED OXYGEN (mg/l.)	ORP (mV)	TURBIDITY (NTU)	TOTAL PURGE VOLUME (liters or gallons)
1125	5/5	6	10	60	16.67	5.90	15.14	971	1.60	-14.0	9.75	0.3	
1130	5/5	6	10	60	17.20	5.93	14.04	958	0.59	-28.4	9.87	0.6	
1135	5/5	6	10	60	17.30	6.09	14.02	1097	0.49	-28.2	9.50	0.9	
1140	5/5	6	10	60	17.30	6.06	14.07	1181	0.38	-23.1	9.07	1.2	
1145	5/5	6	10	60	17.30	6.07	14.14	1285	0.30	-20.5	8.89	1.5	
1150	5/5	6	10	60	17.30	6.06	14.13	1300	0.26	-19.8	8.72	1.8	
1155	5/5	6	10	60	17.30	6.07	14.17	1341	0.23	-19.3	8.74	2.1	
1200	5/5	6	10	60	17.30	6.08	13.80	1381	0.22	-19.0	8.69	2.4	
1205	5/5	6	10	60	17.30	6.09	13.63	1398	0.17	-19.6	8.01	2.7	
1210	5/5	6	10	60	17.30	6.10	13.44	1417	0.18	-20.5	8.01	3.0	
<i>John Underwood</i>													
Stabilization Criteria				100 - 400 mL/min	Drawdown < 0.3'	+/- 0.1 units	3%	3%	10% > 0.5 mg/L or 3 consecutive readings < 0.5 mg/L	+/- 10 mV	10% > 5 NTU or 3 consecutive readings < 5 NTU		
Stabilization Achieved (Y/N)				Y	Y	Y	Y	X	X	Y	Y	Y	3.0

Sampling/Purging Equipment	
Water Level Meter:	Sailrist
pH/S.C./Dissolved Oxygen/ORP:	YSI
Turbidity:	MICROTPW
Pump:	Micro Bladder
Intake Depth (feet below PVC):	22
Tubing:	1/4" Poly

Note: During well purging, monitor indicator field parameters (turbidity, temperature, specific conductance, pH, ORP, DO) at a minimum frequency of 3-5 minute intervals or greater. The pump's flow rate must be able to "turn over" at least one (1) flow-through-cell volume between measurements (for a 250 mL flow-through-cell with a flow rate of 50 mLs/min., the monitoring frequency would be every five minutes; for a 500 mL flow-through-cell it would be every ten minutes). If the cell volume cannot be replaced in the five minute interval, then the time between measurements must be increased accordingly.

Comments: Total Purge Volume = 3.0 Liters

Laboratory Analyses/Containers			
Container	Preservative	#	Analysis
See			Chain of Custody

SAMPLE COLLECTION TIME	START	END
	1215	1235

RAMBOLL ENVIRON

EQUIPMENT CALIBRATION LOG

PRELIMINARY FIELD DRAFT REVIEW PENDING

~~PAGE~~ ~~FC~~ of

3 Carlisle Road, Suite 210
Westford, MA 01886
T: +1 978 449 0358
E: +1 978 449 0301

PROJECT NAME: Envrite RCRA

FIELD PERSON: Luke C. + John V.

PROJECT NUMBER: 08-14218 I

PROJECT MANAGER: John Noble

PROJECT LOCATION: Thomaston CT

FORM DATES: FROM 3/30/16 TO 3/31/16

DATE	EQUIPMENT MODEL/TYPE	SERIAL NUMBER	TEMP. (°C)	STANDARD	PRECALIBRATED READING	CALIBRATED READING
3/30/16	YSI	14F100065	/	Cond=1000 DO=100 ORP=237.5 pH=4.7,10	Cond=1001 DO=99 ORP=236 pH=4.7,10	Cond=1000 DO=100 ORP=237.5 pH=4.7,10
3/30/16	Turb	MicroTPW	/	0, 10, 100	0, 10, 100	0, 10, 100
3/30/16	YSI	14F100059	/	Cond=1000 DO=100 ORP=237.5 pH=4.7,10	Cond=999 DO=101 ORP=235 pH=4.7,10	Cond=1000 DO=100 ORP=237.5 pH=4.7,10
3/30/16	Turb	MicroTPW	(LC)	0, 10, 100	0, 10, 100	0, 10, 100
3/31/16	YSI	14F100065	/	Cond=1000 DO=100 ORP=237.5 pH=4.7,10	Cond=1002 DO=99 ORP=238 pH=4.7,10	Cond=1000 DO=100 ORP=237.5 pH=4.7,10
3/31/16	Turb	MicroTPW	/	0, 10, 100	0, 10, 100	0, 10, 100
3/31/16	YSI	14F100059	/	Cond=1000 DO=100 ORP=237.5 pH=4.7,10	Cond=1001 DO=101 ORP=236 pH=4.7,10	Cond=1000 DO=100 ORP=237.5 pH=4.7,10
3/31/16	Turb	MicroTPW	/	0, 10, 100	0, 10, 100	0, 10, 100



Spectrum Analytical

CHAIN OF CUSTODY RECORD

Page 1 of 3

Special Handling:

 Standard TAT - 7 to 10 business days 5 Day Rush TAT - Date Needed: _____

All TATs subject to laboratory approval

Min. 24-hr notification needed for rushes

Samples disposed after 60 days unless otherwise instructed.

Report To: Ramboll Environ
3 Carlisle Rd Suite 210
Westford MA

Telephone #: 603-703-5534
Project Mgr: John Noble

Invoice To: Kris Sibinga
Enviroite Corporation
PO Box 591
Chappaqua NY 10514

P.O No.: _____ Quote #: _____

Project No: 08-14218 HSite Name: Enviroite RCRA Landfill

Location: Thomaston State: CT
Sampler(s): Luke C
John V

F=Field Filtered 1=Na₂S₂O₃ 2=HCl 3=H₂SO₄ 4=HNO₃ 5=NaOH 6=Ascorbic Acid
7=CH₃OH 8=NaHSO₄ 9=Deionized Water 10=H₃PO₄ 11= _____ 12= _____

List Preservative Code below:

2 4 4

DW=Dinking Water GW=Groundwater SW=Surface Water WW=Waste Water

O=Oil SO=Soil SL=Sludge A=Indoor/Ambient Air SG=Soil Gas

X1= Trip BlankX2= Equipment Blank X3= _____

G= Grab

C=Composite

Lab ID:	Sample ID:	Date:	Time:	Type	Matrix	Containers			Analysis			Check if chlorinated
						# of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	VOCs 8260	As, Cd, Cr, Cu, Ni, Pb, Dissolved As, Cd, Cu, Zn (ICP)	
	TB-20160330	3/30/16	0900	G	X1	1				X		<input type="checkbox"/>
	EB-20160330		1200	G	X2	3		1		X	X	<input type="checkbox"/>
	DUP-20160330		NA	G	SW	3		1		X	X	<input type="checkbox"/>
	SW-NR-1/20160330		0935	G	SW	3		1		X	X	<input type="checkbox"/>
	SW-NR-2/20160330	10	1000	G	SW	3		1		X	X	<input type="checkbox"/>
	SW-BB-1/20160330		1100	G	SW	3		1		X	X	<input type="checkbox"/>
	SW-BB-2/20160330		1130	G	SW	3		1		X	X	<input type="checkbox"/>
	MW-H4D/20160330		1225	G	GW	3		1		X	X	<input type="checkbox"/>
	MW-H4S/20160330	1300	1300	G	GW	3		1		X	X	<input type="checkbox"/>
	MW-H4D/20160330	3/30/16	1345	G	GW	3		1		X	X	<input type="checkbox"/>

Relinquished by:

Received by:

Date:

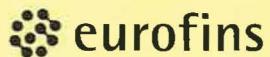
Time:

Temp °C

EDD format: Eviron Equis 4 File
 E-mail to: jnobles@ramboll.com

*Freshwater Aquatic Life Criteria, Report J values.

Condition upon receipt: Custody Seals: Present Intact Broken
 Ambient Iced Refrigerated DI VOA Frozen Soil Jar Frozen



Spectrum Analytical

CHAIN OF CUSTODY RECORD

Page 2 of 3

Special Handling:

 Standard TAT - 7 to 10 business days 5 Day Rush TAT - Date Needed: _____

All TATs subject to laboratory approval

Min. 24-hr notification needed for rushes

Samples disposed after 60 days unless otherwise instructed.

Report To: Ramboll Environ
3 Carlisle Rd Suite 210
Westford MA

Telephone #: 603-703-5534
Project Mgr: John Noble

Invoice To: Kris Sibbinga
Envirite Corporation
PO Box 591
Chappaqua NY 10514

P.O No.: _____ Quote #: _____

Project No: 08-14218HSite Name: Envirite RCRA LandfillLocation: Thomaston State: CTSampler(s): Luke C.
John W.

F=Field Filtered 1=Na₂S₂O₃ 2=HCl 3=H₂SO₄ 4=HNO₃ 5=NaOH 6=Ascorbic Acid
7=CH₃OH 8=NaHSO₄ 9=Deionized Water 10=H₃PO₄ 11= _____ 12= _____

List Preservative Code below:

2

4

Analysis

DW=Dinking Water GW=Groundwater SW=Surface Water WW=Waste Water

O=Oil SO=Soil SL=Sludge A=Indoor/Ambient Air SG=Soil Gas

X1= Trip BlankX2= Equipment Blank X3= _____

QA/QC Reporting Notes:

* additional charges may apply

MA DEP MCP CAM Report? Yes NoCT DPH RCP Report? Yes No Standard No QC DQA* ASP A* ASP B* NJ Reduced* NJ Full* Tier II* Tier IV* Other: CT RCP CT RSRS

State-specific reporting standards:

G= Grab

C= Compsite

Check if chlorinated

Lab ID:	Sample ID:	Date:	Time:	Type	Matrix	# of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	VOCs 8260	As, Cd, Cr, Cu, Ni, Zn	Check if chlorinated
	MW-42S/20160330	3/30/16	1525	G	GW	3			1	X	X	<input type="checkbox"/>
	MW-41S/20160330	3/30/16	1515	G	GW	3			1	X	X	<input type="checkbox"/>
	MW-41D/20160330	3/30/16	1345	G	GW	3			1	X	X	<input type="checkbox"/>
	TB-20160331	3/31/16	0900	G	X1	1				X		<input type="checkbox"/>
	EB-20160331		1200	G	X2	3			1	X	X	<input type="checkbox"/>
	DUP-20160331		NA	G	GW	3			1	X	X	<input type="checkbox"/>
	MW-51D/20160331	(4)	0935	G	GW	3			1	X	X	<input type="checkbox"/>
	MW-50S/20160331		0925	G	GW	3			1	X	X	<input type="checkbox"/>
	MW-53D/20160331		1040	G	GW	3			1	X	X	<input type="checkbox"/>
	MW-30/20160331	3/31/16	1215	G	GW	3			1	X	X	<input type="checkbox"/>

Relinquished by:

Received by:

Date:

Time:

Temp °C

EDD format: Environ Equis 4 File
 E-mail to: jnobles@ramboll.com

L. NobleJ. Kurlan

3/31/16 14:30

Observed
Corection Factor
Corrected
IR ID #

Condition upon receipt: Custody Seals: Present Intact Broken
 Ambient Iced Refrigerated DI VOA Frozen Soil Jar Frozen

Thomaston, Connecticut

**APPENDIX B
SPECTRUM ANALYTICAL, INC. LABORATORY REPORTS (SC19667)**

Laboratory Report

Ramboll Environ US Corporation
3 Carlisle Rd
Westford, MA 01886
Attn: John Noble

Project: Envirite RCRA Landfill - Thomaston, CT
Project #: 08-14218H

Laboratory ID	Client Sample ID	Matrix	Date Sampled	Date Received
SC19667-01	TB-20160330	Trip Blank	30-Mar-16 09:00	31-Mar-16 16:35
SC19667-02	EB-20160330	Equipment Blank	30-Mar-16 12:00	31-Mar-16 16:35
SC19667-03	DUP-20160330	Surface Water	30-Mar-16 00:00	31-Mar-16 16:35
SC19667-04	SW-NR-1/20160330	Surface Water	30-Mar-16 09:35	31-Mar-16 16:35
SC19667-05	SW-NR-2/20160330	Surface Water	30-Mar-16 10:00	31-Mar-16 16:35
SC19667-06	SW-BB-1/20160330	Surface Water	30-Mar-16 11:00	31-Mar-16 16:35
SC19667-07	SW-BB-2/20160330	Surface Water	30-Mar-16 11:30	31-Mar-16 16:35
SC19667-08	MW-44D/20160330	Ground Water	30-Mar-16 12:25	31-Mar-16 16:35
SC19667-09	MW-43S/20160330	Ground Water	30-Mar-16 13:00	31-Mar-16 16:35
SC19667-10	MW-43D/20160330	Ground Water	30-Mar-16 13:45	31-Mar-16 16:35
SC19667-11	MW-42S/20160330	Ground Water	30-Mar-16 15:25	31-Mar-16 16:35
SC19667-12	MW-41S/20160330	Ground Water	30-Mar-16 15:15	31-Mar-16 16:35
SC19667-13	MW-41D/20160330	Ground Water	30-Mar-16 13:45	31-Mar-16 16:35
SC19667-14	TB-20160331	Trip Blank	31-Mar-16 09:00	31-Mar-16 16:35
SC19667-15	EB-20160331	Equipment Blank	31-Mar-16 12:00	31-Mar-16 16:35
SC19667-16	DUP-20160331	Ground Water	31-Mar-16 00:00	31-Mar-16 16:35
SC19667-17	MW-51D/20160331	Ground Water	31-Mar-16 09:35	31-Mar-16 16:35
SC19667-18	MW-50S/20160331	Ground Water	31-Mar-16 09:25	31-Mar-16 16:35
SC19667-19	MW-53D/20160331	Ground Water	31-Mar-16 10:40	31-Mar-16 16:35
SC19667-20	MW-30/20160331	Ground Water	31-Mar-16 12:15	31-Mar-16 16:35
SC19667-21	MW-31S/20160331	Ground Water	31-Mar-16 12:15	31-Mar-16 16:35
SC19667-22	MW-31S/20160331F	Ground Water	31-Mar-16 12:15	31-Mar-16 16:35

I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. These results relate only to the sample(s) as received.

All applicable NELAC requirements have been met.

Massachusetts # M-MA138/MA1110

Connecticut # PH-0777

Florida # E87936

Maine # MA138

New Hampshire # 2538

New Jersey # MA011

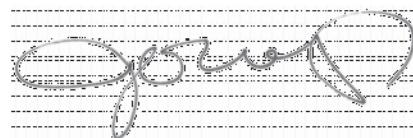
New York # 11393

Pennsylvania # 68-04426/68-02924

Rhode Island # LAO00098

USDA # S-51435

Authorized by:



June O'Connor
Laboratory Director



Eurofins Spectrum Analytical holds certification in the State of New York for the analytes as indicated with an X in the "Cert." column within this report. Please note that the State of New York does not offer certification for all analytes. Please refer to our website for specific certification holdings in each state.

Please note that this report contains 105 pages of analytical data plus Chain of Custody document(s). When the Laboratory Report is indicated as revised, this report supersedes any previously dated reports for the laboratory ID(s) referenced above. Where this report identifies subcontracted analyses, copies of the subcontractor's test report are available upon request. This report may not be reproduced, except in full, without written approval from Eurofins Spectrum Analytical, Inc.

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Please contact the Laboratory or Technical Director at 800-789-9115 with any questions regarding the data contained in this laboratory report.

CASE NARRATIVE:

Data has been reported to the MDL. This report includes estimated concentrations detected below the RDL and above the MDL (J-Flag).

All non-detects and all results below the detection limit are reported as “<” (less than) the detection limit in this report.

The samples were received 2.1 degrees Celsius, please refer to the Chain of Custody for details specific to temperature upon receipt. An infrared thermometer with a tolerance of +/- 1.0 degrees Celsius was used immediately upon receipt of the samples.

If a Matrix Spike (MS), Matrix Spike Duplicate (MSD) or Duplicate (DUP) was not requested on the Chain of Custody, method criteria may have been fulfilled with a source sample not of this Sample Delivery Group.

See below for any non-conformances and issues relating to quality control samples and/or sample analysis/matrix.

SW846 6020A

Laboratory Control Samples:

1605539 BS/BSD

Arsenic percent recoveries (119/117) are outside individual acceptance criteria (85-115), but within overall method allowances.

All reported results of the following samples are considered to have a potentially high bias:

DUP-20160330
EB-20160330
SW-BB-1/20160330
SW-BB-2/20160330
SW-NR-1/20160330
SW-NR-2/20160330

Duplicates:

1605539-DUP1 *Source: SC19667-03*

MRL raised to correlate to batch QC reporting limits.

Zinc

Samples:

SC19667-02 *EB-20160330*

MRL raised to correlate to batch QC reporting limits.

Zinc

SC19667-03 *DUP-20160330*

MRL raised to correlate to batch QC reporting limits.

Zinc

SC19667-04 *SW-NR-1/20160330*

MRL raised to correlate to batch QC reporting limits.

Zinc

SC19667-05 *SW-NR-2/20160330*

MRL raised to correlate to batch QC reporting limits.

Zinc

SC19667-06 *SW-BB-1/20160330*

SW846 6020A

Samples:

SC19667-06 *SW-BB-1/20160330*

MRL raised to correlate to batch QC reporting limits.

Zinc

SC19667-07 *SW-BB-2/20160330*

MRL raised to correlate to batch QC reporting limits.

Zinc

SW846 8260C

Calibration:

1603054

Analyte quantified by quadratic equation type calibration.

1,2,3-Trichlorobenzene
1,2,4-Trichlorobenzene
1,4-Dioxane
cis-1,3-Dichloropropene
Naphthalene
n-Butylbenzene
trans-1,3-Dichloropropene
Vinyl chloride

SW846 8260C

Calibration:

1603054

This affected the following samples:

1605473-BLK1
1605473-BS1
1605473-BSD1
1605473-MS1
1605473-MSD1
1605474-BLK1
1605474-BS1
1605474-BSD1
1605474-MS1
1605474-MSD1
1605556-BLK1
1605556-BS1
1605556-BSD1
DUP-20160330
DUP-20160331
EB-20160330
EB-20160331
MW-30/20160331
MW-31S/20160331
MW-41D/20160330
MW-41S/20160330
MW-42S/20160330
MW-43D/20160330
MW-43S/20160330
MW-44D/20160330
MW-50S/20160331
MW-51D/20160331
MW-53D/20160331
S602464-ICV1
S602693-CCV1
S602694-CCV1
S602735-CCV1
SW-BB-1/20160330
SW-BB-2/20160330
SW-NR-1/20160330
SW-NR-2/20160330
TB-20160330
TB-20160331

S602464-ICV1

Analyte percent recovery is outside individual acceptance criteria (80-120).

Vinyl chloride (74%)

SW846 8260C

Calibration:

S602464-ICV1

This affected the following samples:

1605473-BLK1
1605473-BS1
1605473-BSD1
1605473-MS1
1605473-MSD1
1605474-BLK1
1605474-BS1
1605474-BSD1
1605474-MS1
1605474-MSD1
1605556-BLK1
1605556-BS1
1605556-BSD1
DUP-20160330
DUP-20160331
EB-20160330
EB-20160331
MW-30/20160331
MW-31S/20160331
MW-41D/20160330
MW-41S/20160330
MW-42S/20160330
MW-43D/20160330
MW-43S/20160330
MW-44D/20160330
MW-50S/20160331
MW-51D/20160331
MW-53D/20160331
S602693-CCV1
S602694-CCV1
S602735-CCV1
SW-BB-1/20160330
SW-BB-2/20160330
SW-NR-1/20160330
SW-NR-2/20160330
TB-20160330
TB-20160331

Blanks:

1605556-BLK1

The method blank contains analyte at a concentration above the MRL, however no reportable concentration is present in the sample.

Tert-Butanol / butyl alcohol

Laboratory Control Samples:

1605474 BS/BSD

SW846 8260C

Laboratory Control Samples:

1605474 BS/BSD

Vinyl chloride percent recoveries (64/70) are outside individual acceptance criteria (70-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially low bias:

DUP-20160331
EB-20160331
MW-31S/20160331
MW-50S/20160331
MW-51D/20160331
TB-20160331

1605474 BSD

Ethanol RPD 33% (20%) is outside individual acceptance criteria.

1605556 BS/BSD

Chloromethane percent recoveries (75/68) are outside individual acceptance criteria (70-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially low bias:

MW-30/20160331
MW-31S/20160331
MW-53D/20160331

Dichlorodifluoromethane (Freon12) percent recoveries (75/69) are outside individual acceptance criteria (70-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially low bias:

MW-30/20160331
MW-31S/20160331
MW-53D/20160331

1605556-BS1

Analyte is found in the associated blank as well as in the sample (CLP B-flag).

Tert-Butanol / butyl alcohol

LCS/LCSD were analyzed in place of MS/MSD.

1605556-BSD1

Analyte is found in the associated blank as well as in the sample (CLP B-flag).

Tert-Butanol / butyl alcohol

LCS/LCSD were analyzed in place of MS/MSD.

Spikes:

1605474-MS1 Source: SC19667-21

The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

2-Butanone (MEK)
Toluene
Vinyl chloride

This flag indicates the concentration for this analyte is an estimated value due to exceeding the calibration range or interferences resulting in a biased final concentration.

4-Methyl-2-pentanone (MIBK)

1605474-MSD1 Source: SC19667-21

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SW846 8260C

Spikes:

1605474-MSD1 *Source: SC19667-21*

RPD out of acceptance range.

4-Methyl-2-pentanone (MIBK)
Toluene

The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

2-Butanone (MEK)
4-Methyl-2-pentanone (MIBK)
Toluene
Vinyl chloride

This flag indicates the concentration for this analyte is an estimated value due to exceeding the calibration range or interferences resulting in a biased final concentration.

4-Methyl-2-pentanone (MIBK)

Samples:

S602694-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

1,1,2-Trichlorotrifluoroethane (Freon 113) (-20.4%)
Chloroethane (-25.4%)
Dichlorodifluoromethane (Freon12) (-28.9%)
Methylene chloride (-23.5%)

Analyte percent drift is outside individual acceptance criteria (20), but within overall method allowances.

Vinyl chloride (-33.6%)

This affected the following samples:

1605474-BLK1
1605474-BS1
1605474-BSD1
1605474-MS1
1605474-MSD1
DUP-20160331
EB-20160331
MW-31S/20160331
MW-50S/20160331
MW-51D/20160331
TB-20160331

S602735-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

1,3-Dichlorobenzene (22.6%)
Chloromethane (-30.4%)
Dichlorodifluoromethane (Freon12) (-28.7%)

Analyte percent drift is outside individual acceptance criteria (20), but within overall method allowances.

Vinyl chloride (-22.8%)

SW846 8260C

Samples:

S602735-CCV1

This affected the following samples:

1605556-BLK1
1605556-BS1
1605556-BSD1
MW-30/20160331
MW-31S/20160331
MW-53D/20160331

SC19667-20 *MW-30/20160331*

Sample dilution required for high concentration of target analytes to be within the instrument calibration range.

SC19667-21 *MW-31S/20160331*

Sample dilution required for high concentration of target analytes to be within the instrument calibration range.

SC19667-21RE1 *MW-31S/20160331*

Sample dilution required for high concentration of target analytes to be within the instrument calibration range.

Sample Acceptance Check Form

Client: Ramboll Environ US Corporation - Westford, MA
Project: Envirite RCRA Landfill - Thomaston, CT / 08-14218H
Work Order: SC19667
Sample(s) received on: 3/31/2016

The following outlines the condition of samples for the attached Chain of Custody upon receipt.

	<u>Yes</u>	<u>No</u>	<u>N/A</u>
Were custody seals present?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Were custody seals intact?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Were samples received at a temperature of $\leq 6^{\circ}\text{C}$?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Were samples cooled on ice upon transfer to laboratory representative?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Were sample containers received intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Were samples properly labeled (labels affixed to sample containers and include sample ID, site location, and/or project number and the collection date)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Were samples accompanied by a Chain of Custody document?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does Chain of Custody document include proper, full, and complete documentation, which shall include sample ID, site location, and/or project number, date and time of collection, collector's name, preservation type, sample matrix and any special remarks concerning the sample?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Did sample container labels agree with Chain of Custody document?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Were samples received within method-specific holding times?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Summary of Hits

Lab ID: SC19667-02

Client ID: EB-20160330

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Copper (dissolved)	0.00034		0.00025	mg/l	SW846 6020A
Zinc (dissolved)	0.00239	R06, J	0.00870	mg/l	SW846 6020A

Lab ID: SC19667-03

Client ID: DUP-20160330

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Cadmium (dissolved)	0.00005	J	0.00025	mg/l	SW846 6020A
Copper (dissolved)	0.00153		0.00025	mg/l	SW846 6020A
Zinc (dissolved)	0.00867	R06, J	0.00870	mg/l	SW846 6020A

Lab ID: SC19667-04

Client ID: SW-NR-1/20160330

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Cadmium (dissolved)	0.00005	J	0.00025	mg/l	SW846 6020A
Copper (dissolved)	0.00136		0.00025	mg/l	SW846 6020A
Zinc (dissolved)	0.00800	R06, J	0.00870	mg/l	SW846 6020A

Lab ID: SC19667-05

Client ID: SW-NR-2/20160330

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Cadmium (dissolved)	0.00005	J	0.00025	mg/l	SW846 6020A
Copper (dissolved)	0.00148		0.00025	mg/l	SW846 6020A
Zinc (dissolved)	0.00844	R06, J	0.00870	mg/l	SW846 6020A

Lab ID: SC19667-06

Client ID: SW-BB-1/20160330

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Cadmium (dissolved)	0.00002	J	0.00025	mg/l	SW846 6020A
Copper (dissolved)	0.00081		0.00025	mg/l	SW846 6020A
Zinc (dissolved)	0.00590	R06, J	0.00870	mg/l	SW846 6020A

Lab ID: SC19667-07

Client ID: SW-BB-2/20160330

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Arsenic (dissolved)	0.00002	J	0.00025	mg/l	SW846 6020A
Cadmium (dissolved)	0.00002	J	0.00025	mg/l	SW846 6020A
Copper (dissolved)	0.00079		0.00025	mg/l	SW846 6020A
Zinc (dissolved)	0.00613	R06, J	0.00870	mg/l	SW846 6020A

Lab ID: SC19667-08**Client ID:** MW-44D/20160330

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Arsenic	0.0044		0.0040	mg/l	SW846 6010C
Copper	0.0346		0.0050	mg/l	SW846 6010C
Nickel	0.0355		0.0050	mg/l	SW846 6010C
Zinc	0.0457		0.0050	mg/l	SW846 6010C
cis-1,2-Dichloroethene	97.7		1.0	µg/l	SW846 8260C
Tetrachloroethene	33.4		1.0	µg/l	SW846 8260C
Trichloroethene	62.5		1.0	µg/l	SW846 8260C
Vinyl chloride	5.3		1.0	µg/l	SW846 8260C

Lab ID: SC19667-09**Client ID:** MW-43S/20160330

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Arsenic	0.0157		0.0040	mg/l	SW846 6010C
Copper	0.0158		0.0050	mg/l	SW846 6010C
Nickel	0.0134		0.0050	mg/l	SW846 6010C
Zinc	0.0206		0.0050	mg/l	SW846 6010C
cis-1,2-Dichloroethene	8.3		1.0	µg/l	SW846 8260C
Tetrachloroethene	9.0		1.0	µg/l	SW846 8260C
Trichloroethene	8.6		1.0	µg/l	SW846 8260C

Lab ID: SC19667-10**Client ID:** MW-43D/20160330

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Cadmium	0.0025		0.0025	mg/l	SW846 6010C
Copper	0.536		0.0050	mg/l	SW846 6010C
Nickel	0.141		0.0050	mg/l	SW846 6010C
Zinc	0.490		0.0050	mg/l	SW846 6010C
cis-1,2-Dichloroethene	59.6		1.0	µg/l	SW846 8260C
Tetrachloroethene	23.4		1.0	µg/l	SW846 8260C
Trichloroethene	42.2		1.0	µg/l	SW846 8260C
Vinyl chloride	2.5		1.0	µg/l	SW846 8260C

Lab ID: SC19667-11**Client ID:** MW-42S/20160330

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Copper	0.0218		0.0050	mg/l	SW846 6010C
Nickel	0.0268		0.0050	mg/l	SW846 6010C
Zinc	0.0882		0.0050	mg/l	SW846 6010C
cis-1,2-Dichloroethene	7.6		1.0	µg/l	SW846 8260C
Tetrachloroethene	3.7		1.0	µg/l	SW846 8260C
Trichloroethene	4.6		1.0	µg/l	SW846 8260C

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Lab ID: SC19667-12**Client ID:** MW-41S/20160330

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Zinc	0.0218		0.0050	mg/l	SW846 6010C
cis-1,2-Dichloroethene	2.4		1.0	µg/l	SW846 8260C
Tetrachloroethene	1.5		1.0	µg/l	SW846 8260C
Trichloroethene	1.6		1.0	µg/l	SW846 8260C

Lab ID: SC19667-13**Client ID:** MW-41D/20160330

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Zinc	0.0054		0.0050	mg/l	SW846 6010C
cis-1,2-Dichloroethene	19.3		1.0	µg/l	SW846 8260C
Tetrachloroethene	5.1		1.0	µg/l	SW846 8260C
Trichloroethene	8.5		1.0	µg/l	SW846 8260C

Lab ID: SC19667-15**Client ID:** EB-20160331

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Zinc	0.0074		0.0050	mg/l	SW846 6010C

Lab ID: SC19667-16**Client ID:** DUP-20160331

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Chromium	0.0055		0.0050	mg/l	SW846 6010C
Copper	0.0747		0.0050	mg/l	SW846 6010C
Nickel	0.0478		0.0050	mg/l	SW846 6010C
Zinc	0.0674		0.0050	mg/l	SW846 6010C
cis-1,2-Dichloroethene	53.6		1.0	µg/l	SW846 8260C
Tetrachloroethene	30.5		1.0	µg/l	SW846 8260C
Trichloroethene	40.0		1.0	µg/l	SW846 8260C
Vinyl chloride	1.1		1.0	µg/l	SW846 8260C

Lab ID: SC19667-17**Client ID:** MW-51D/20160331

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Chromium	0.0056		0.0050	mg/l	SW846 6010C
Copper	0.0786		0.0050	mg/l	SW846 6010C
Nickel	0.0472		0.0050	mg/l	SW846 6010C
Zinc	0.0676		0.0050	mg/l	SW846 6010C
cis-1,2-Dichloroethene	50.8		1.0	µg/l	SW846 8260C
Tetrachloroethene	29.7		1.0	µg/l	SW846 8260C
Trichloroethene	38.1		1.0	µg/l	SW846 8260C
Vinyl chloride	1.0		1.0	µg/l	SW846 8260C

Lab ID: SC19667-18**Client ID:** MW-50S/20160331

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Copper	0.0056		0.0050	mg/l	SW846 6010C
Nickel	0.0067		0.0050	mg/l	SW846 6010C
Zinc	0.0932		0.0050	mg/l	SW846 6010C
cis-1,2-Dichloroethene	46.3		1.0	µg/l	SW846 8260C
Tetrachloroethene	11.3		1.0	µg/l	SW846 8260C
Trichloroethene	18.6		1.0	µg/l	SW846 8260C

Lab ID: SC19667-19**Client ID:** MW-53D/20160331

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Nickel	0.0086		0.0050	mg/l	SW846 6010C
Zinc	0.0096		0.0050	mg/l	SW846 6010C
cis-1,2-Dichloroethene	69.8		1.0	µg/l	SW846 8260C
Tetrachloroethene	14.2		1.0	µg/l	SW846 8260C
Trichloroethene	25.4		1.0	µg/l	SW846 8260C
Vinyl chloride	2.6		1.0	µg/l	SW846 8260C

Lab ID: SC19667-20**Client ID:** MW-30/20160331

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Arsenic	0.0041		0.0040	mg/l	SW846 6010C
Chromium	0.0066		0.0050	mg/l	SW846 6010C
Copper	0.0150		0.0050	mg/l	SW846 6010C
Nickel	0.0354		0.0050	mg/l	SW846 6010C
Zinc	0.0423		0.0050	mg/l	SW846 6010C
cis-1,2-Dichloroethene	221	D	5.0	µg/l	SW846 8260C
Trichloroethene	38.2	D	5.0	µg/l	SW846 8260C
Vinyl chloride	12.2	D	5.0	µg/l	SW846 8260C

Lab ID: SC19667-21**Client ID:** MW-31S/20160331

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Chromium	0.0420		0.0050	mg/l	SW846 6010C
Copper	0.0072		0.0050	mg/l	SW846 6010C
Nickel	0.111		0.0050	mg/l	SW846 6010C
Zinc	2.07		0.0050	mg/l	SW846 6010C
1,2,4-Trimethylbenzene	398	D	200	µg/l	SW846 8260C
1,3,5-Trimethylbenzene	214	D	200	µg/l	SW846 8260C
2-Butanone (MEK)	11800	D	2000	µg/l	SW846 8260C
4-Methyl-2-pentanone (MIBK)	29800	D, E	2000	µg/l	SW846 8260C
Acetone	2220	D	2000	µg/l	SW846 8260C
Benzene	220	D	200	µg/l	SW846 8260C
cis-1,2-Dichloroethene	5560	D	200	µg/l	SW846 8260C
Ethylbenzene	4990	D	200	µg/l	SW846 8260C
m,p-Xylene	9130	D	400	µg/l	SW846 8260C
o-Xylene	3480	D	200	µg/l	SW846 8260C
Toluene	15700	D	200	µg/l	SW846 8260C
Vinyl chloride	344	D	200	µg/l	SW846 8260C

Lab ID: SC19667-21RE1**Client ID:** MW-31S/20160331

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
1,2,4-Trimethylbenzene	515	D	500	µg/l	SW846 8260C
2-Butanone (MEK)	10000	D	5000	µg/l	SW846 8260C
4-Methyl-2-pentanone (MIBK)	22400	D	5000	µg/l	SW846 8260C
cis-1,2-Dichloroethene	4740	D	500	µg/l	SW846 8260C
Ethylbenzene	4240	D	500	µg/l	SW846 8260C
m,p-Xylene	7870	D	1000	µg/l	SW846 8260C
o-Xylene	2880	D	500	µg/l	SW846 8260C
Toluene	15600	D	500	µg/l	SW846 8260C

Lab ID: SC19667-22**Client ID:** MW-31S/20160331F

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Chromium (dissolved)	0.0342		0.0050	mg/l	SW846 6010C
Nickel (dissolved)	0.117		0.0050	mg/l	SW846 6010C
Zinc (dissolved)	1.32		0.0050	mg/l	SW846 6010C

Please note that because there are no reporting limits associated with hazardous waste characterizations or micro analyses, this summary does not include hits from these analyses if included in this work order.

Sample Identification

TB-20160330

SC19667-01

Client Project #

08-14218H

Matrix

Trip Blank

Collection Date/Time

30-Mar-16 09:00

Received

31-Mar-16

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
<u>Volatile Organic Compounds by SW846 8260</u>													
<u>Prepared by method SW846 5030 Water MS</u>													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0	0.9	1	SW846 8260C	04-Apr-16	04-Apr-16	GMA	1605473	X
67-64-1	Acetone	< 10.0		µg/l	10.0	3.4	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
71-43-2	Benzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
74-97-5	Bromochloromethane	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.0		µg/l	2.0	0.6	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 10.0		µg/l	10.0	1.2	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.0		µg/l	2.0	0.5	1	"	"	"	"	"	X
67-66-3	Chloroform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 10.0		µg/l	10.0	1.2	1	"	"	"	"	"	X

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Sample Identification

TB-20160330

SC19667-01

Client Project #

08-14218H

Matrix

Trip Blank

Collection Date/Time

30-Mar-16 09:00

Received

31-Mar-16

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
<u>Volatile Organic Compounds by SW846 8260</u>													
<u>Prepared by method SW846 5030 Water MS</u>													
98-82-8	Isopropylbenzene	< 1.0		µg/l	1.0	0.3	1	SW846 8260C	04-Apr-16	04-Apr-16	GMA	1605473	X
99-87-6	4-Isopropyltoluene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0	0.9	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-88-3	Toluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
71-55-6	1,1,1-Trichloroethane	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-01-6	Trichloroethene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
95-47-6	o-Xylene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
60-29-7	Ethyl ether	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	6.0	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	12.7	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.0		µg/l	5.0	3.1	1	"	"	"	"	"	X
64-17-5	Ethanol	< 400		µg/l	400	23.6	1	"	"	"	"	"	X

Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	92	70-130 %	"	"	"	"	"
2037-26-5	Toluene-d8	99	70-130 %	"	"	"	"	"
17060-07-0	1,2-Dichloroethane-d4	108	70-130 %	"	"	"	"	"
1868-53-7	Dibromofluoromethane	107	70-130 %	"	"	"	"	"

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Sample Identification

EB-20160330

SC19667-02

Client Project #

08-14218H

Matrix

Equipment Blank

Collection Date/Time

30-Mar-16 12:00

Received

31-Mar-16

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
<u>Volatile Organic Compounds by SW846 8260</u>													
<u>Prepared by method SW846 5030 Water MS</u>													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0	0.9	1	SW846 8260C	04-Apr-16	04-Apr-16	GMA	1605473	X
67-64-1	Acetone	< 10.0		µg/l	10.0	3.4	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
71-43-2	Benzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
74-97-5	Bromo(chloromethane	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.0		µg/l	2.0	0.6	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 10.0		µg/l	10.0	1.2	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.0		µg/l	2.0	0.5	1	"	"	"	"	"	X
67-66-3	Chloroform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 10.0		µg/l	10.0	1.2	1	"	"	"	"	"	X

This laboratory report is not valid without an authorized signature on the cover page.

Sample Identification

EB-20160330

SC19667-02

Client Project #

08-14218H

Matrix

Equipment Blank

Collection Date/Time

30-Mar-16 12:00

Received

31-Mar-16

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
<u>Volatile Organic Compounds by SW846 8260</u>													
<u>Prepared by method SW846 5030 Water MS</u>													
98-82-8	Isopropylbenzene	< 1.0		µg/l	1.0	0.3	1	SW846 8260C	04-Apr-16	04-Apr-16	GMA	1605473	X
99-87-6	4-Isopropyltoluene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0	0.9	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-88-3	Toluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
71-55-6	1,1,1-Trichloroethane	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-01-6	Trichloroethene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
95-47-6	o-Xylene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
60-29-7	Ethyl ether	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	6.0	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	12.7	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.0		µg/l	5.0	3.1	1	"	"	"	"	"	X
64-17-5	Ethanol	< 400		µg/l	400	23.6	1	"	"	"	"	"	X

Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	89		70-130 %	"	"	"	"	"	"	"	"	"
2037-26-5	Toluene-d8	100		70-130 %	"	"	"	"	"	"	"	"	"
17060-07-0	1,2-Dichloroethane-d4	111		70-130 %	"	"	"	"	"	"	"	"	"
1868-53-7	Dibromofluoromethane	108		70-130 %	"	"	"	"	"	"	"	"	"

Soluble Metals by EPA 200/6000 Series Methods

Filtration	Field Filtered	N/A	1	EPA 200.7/3005A/601 0	LNB	1605405
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Sample Identification

EB-20160330

SC19667-02

Client Project #

08-14218H

Matrix

Equipment Blank

Collection Date/Time

30-Mar-16 12:00

Received

31-Mar-16

<u>CAS No.</u>	<u>Analyte(s)</u>	<u>Result</u>	<u>Flag</u>	<u>Units</u>	* <u>RDL</u>	<u>MDL</u>	<u>Dilution</u>	<u>Method Ref.</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Analyst</u>	<u>Batch</u>	<u>Cert.</u>
Soluble Metals by EPA 6000/7000 Series Methods													
7440-38-2	Arsenic	< 0.00002	U	mg/l	0.00025	0.00002	1	SW846 6020A	06-Apr-16	07-Apr-16	edt	1605539	X
7440-43-9	Cadmium	< 0.000007	U	mg/l	0.00025	0.000007	1	"	"	"	"	"	X
7440-50-8	Copper	0.00034		mg/l	0.00025	0.00002	1	"	"	"	"	"	X
7440-66-6	Zinc	0.00239	R06, J	mg/l	0.00870	0.00012	1	"	"	"	"	"	X

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Sample Identification

DUP-20160330

SC19667-03

Client Project #

08-14218H

Matrix

Surface Water

Collection Date/Time

30-Mar-16 00:00

Received

31-Mar-16

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260													
Prepared by method SW846 5030 Water MS													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0	0.9	1	SW846 8260C	04-Apr-16	04-Apr-16	GMA	1605473	X
67-64-1	Acetone	< 10.0		µg/l	10.0	3.4	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
71-43-2	Benzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
74-97-5	Bromochloromethane	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.0		µg/l	2.0	0.6	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 10.0		µg/l	10.0	1.2	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.0		µg/l	2.0	0.5	1	"	"	"	"	"	X
67-66-3	Chloroform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 10.0		µg/l	10.0	1.2	1	"	"	"	"	"	X

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Sample Identification

DUP-20160330

SC19667-03

Client Project #

08-14218H

Matrix

Surface Water

Collection Date/Time

30-Mar-16 00:00

Received

31-Mar-16

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260													
Prepared by method SW846 5030 Water MS													
98-82-8	Isopropylbenzene	< 1.0		µg/l	1.0	0.3	1	SW846 8260C	04-Apr-16	04-Apr-16	GMA	1605473	X
99-87-6	4-Isopropyltoluene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0	0.9	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-88-3	Toluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
71-55-6	1,1,1-Trichloroethane	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-01-6	Trichloroethene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
95-47-6	o-Xylene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
60-29-7	Ethyl ether	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	6.0	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	12.7	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.0		µg/l	5.0	3.1	1	"	"	"	"	"	X
64-17-5	Ethanol	< 400		µg/l	400	23.6	1	"	"	"	"	"	X

Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	91		70-130 %	"	"	"	"	"	"	"	"	"
2037-26-5	Toluene-d8	101		70-130 %	"	"	"	"	"	"	"	"	"
17060-07-0	1,2-Dichloroethane-d4	110		70-130 %	"	"	"	"	"	"	"	"	"
1868-53-7	Dibromofluoromethane	108		70-130 %	"	"	"	"	"	"	"	"	"

Soluble Metals by EPA 200/6000 Series Methods

Filtration	Field Filtered	N/A	1	EPA 200.7/3005A/601 0	LNB	1605405
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Sample Identification

DUP-20160330

SC19667-03

Client Project #

08-14218H

Matrix

Surface Water

Collection Date/Time

30-Mar-16 00:00

Received

31-Mar-16

<u>CAS No.</u>	<u>Analyte(s)</u>	<u>Result</u>	<u>Flag</u>	<u>Units</u>	* <u>RDL</u>	<u>MDL</u>	<u>Dilution</u>	<u>Method Ref.</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Analyst</u>	<u>Batch</u>	<u>Cert.</u>
Soluble Metals by EPA 6000/7000 Series Methods													
7440-38-2	Arsenic	< 0.00002	U	mg/l	0.00025	0.00002	1	SW846 6020A	06-Apr-16	07-Apr-16	edt	1605539	X
7440-43-9	Cadmium	0.00005	J	mg/l	0.00025	0.000007	1	"	"	"	"	"	X
7440-50-8	Copper	0.00153		mg/l	0.00025	0.00002	1	"	"	"	"	"	X
7440-66-6	Zinc	0.00867	R06, J	mg/l	0.00870	0.00012	1	"	"	"	"	"	X

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Sample Identification

SW-NR-1/20160330

SC19667-04

Client Project #

08-14218H

Matrix

Surface Water

Collection Date/Time

30-Mar-16 09:35

Received

31-Mar-16

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260													
Prepared by method SW846 5030 Water MS													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0	0.9	1	SW846 8260C	04-Apr-16	04-Apr-16	GMA	1605473	X
67-64-1	Acetone	< 10.0		µg/l	10.0	3.4	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
71-43-2	Benzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
74-97-5	Bromo(chloromethane	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.0		µg/l	2.0	0.6	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 10.0		µg/l	10.0	1.2	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.0		µg/l	2.0	0.5	1	"	"	"	"	"	X
67-66-3	Chloroform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 10.0		µg/l	10.0	1.2	1	"	"	"	"	"	X

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Sample Identification

SW-NR-1/20160330

SC19667-04

Client Project #

08-14218H

Matrix

Surface Water

Collection Date/Time

30-Mar-16 09:35

Received

31-Mar-16

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260													
Prepared by method SW846 5030 Water MS													
98-82-8	Isopropylbenzene	< 1.0		µg/l	1.0	0.3	1	SW846 8260C	04-Apr-16	04-Apr-16	GMA	1605473	X
99-87-6	4-Isopropyltoluene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0	0.9	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-88-3	Toluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
71-55-6	1,1,1-Trichloroethane	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-01-6	Trichloroethene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
95-47-6	o-Xylene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
60-29-7	Ethyl ether	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	6.0	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	12.7	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.0		µg/l	5.0	3.1	1	"	"	"	"	"	X
64-17-5	Ethanol	< 400		µg/l	400	23.6	1	"	"	"	"	"	X

Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	90		70-130 %	"	"	"	"	"	"	"	"	"
2037-26-5	Toluene-d8	100		70-130 %	"	"	"	"	"	"	"	"	"
17060-07-0	1,2-Dichloroethane-d4	108		70-130 %	"	"	"	"	"	"	"	"	"
1868-53-7	Dibromofluoromethane	109		70-130 %	"	"	"	"	"	"	"	"	"

Soluble Metals by EPA 200/6000 Series Methods

Filtration	Field Filtered	N/A	1	EPA 200.7/3005A/601 0	LNB	1605405
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Sample Identification

SW-NR-1/20160330

SC19667-04

Client Project #

08-14218H

Matrix

Surface Water

Collection Date/Time

30-Mar-16 09:35

Received

31-Mar-16

<u>CAS No.</u>	<u>Analyte(s)</u>	<u>Result</u>	<u>Flag</u>	<u>Units</u>	* <u>RDL</u>	<u>MDL</u>	<u>Dilution</u>	<u>Method Ref.</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Analyst</u>	<u>Batch</u>	<u>Cert.</u>
Soluble Metals by EPA 6000/7000 Series Methods													
7440-38-2	Arsenic	< 0.00002	U	mg/l	0.00025	0.00002	1	SW846 6020A	06-Apr-16	07-Apr-16	edt	1605539	X
7440-43-9	Cadmium	0.00005	J	mg/l	0.00025	0.000007	1	"	"	"	"	"	X
7440-50-8	Copper	0.00136		mg/l	0.00025	0.00002	1	"	"	"	"	"	X
7440-66-6	Zinc	0.00800	R06, J	mg/l	0.00870	0.00012	1	"	"	"	"	"	X

Sample Identification

SW-NR-2/20160330

SC19667-05

Client Project #

08-14218H

Matrix

Surface Water

Collection Date/Time

30-Mar-16 10:00

Received

31-Mar-16

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260													
Prepared by method SW846 5030 Water MS													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0	0.9	1	SW846 8260C	04-Apr-16	04-Apr-16	GMA	1605473	X
67-64-1	Acetone	< 10.0		µg/l	10.0	3.4	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
71-43-2	Benzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
74-97-5	Bromo(chloromethane	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.0		µg/l	2.0	0.6	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 10.0		µg/l	10.0	1.2	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.0		µg/l	2.0	0.5	1	"	"	"	"	"	X
67-66-3	Chloroform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 10.0		µg/l	10.0	1.2	1	"	"	"	"	"	X

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Sample Identification

SW-NR-2/20160330

SC19667-05

Client Project #

08-14218H

Matrix

Surface Water

Collection Date/Time

30-Mar-16 10:00

Received

31-Mar-16

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260													
Prepared by method SW846 5030 Water MS													
98-82-8	Isopropylbenzene	< 1.0		µg/l	1.0	0.3	1	SW846 8260C	04-Apr-16	04-Apr-16	GMA	1605473	X
99-87-6	4-Isopropyltoluene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0	0.9	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-88-3	Toluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
71-55-6	1,1,1-Trichloroethane	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-01-6	Trichloroethene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
95-47-6	o-Xylene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
60-29-7	Ethyl ether	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	6.0	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	12.7	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.0		µg/l	5.0	3.1	1	"	"	"	"	"	X
64-17-5	Ethanol	< 400		µg/l	400	23.6	1	"	"	"	"	"	X

Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	90		70-130 %	"	"	"	"	"	"	"	"	"
2037-26-5	Toluene-d8	100		70-130 %	"	"	"	"	"	"	"	"	"
17060-07-0	1,2-Dichloroethane-d4	107		70-130 %	"	"	"	"	"	"	"	"	"
1868-53-7	Dibromofluoromethane	107		70-130 %	"	"	"	"	"	"	"	"	"

Soluble Metals by EPA 200/6000 Series Methods

Filtration	Field Filtered	N/A	1	EPA 200.7/3005A/601 0	LNB	1605405
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This laboratory report is not valid without an authorized signature on the cover page.

Sample Identification

SW-NR-2/20160330

SC19667-05

Client Project #

08-14218H

Matrix

Surface Water

Collection Date/Time

30-Mar-16 10:00

Received

31-Mar-16

<u>CAS No.</u>	<u>Analyte(s)</u>	<u>Result</u>	<u>Flag</u>	<u>Units</u>	* <u>RDL</u>	<u>MDL</u>	<u>Dilution</u>	<u>Method Ref.</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Analyst</u>	<u>Batch</u>	<u>Cert.</u>
Soluble Metals by EPA 6000/7000 Series Methods													
7440-38-2	Arsenic	< 0.00002	U	mg/l	0.00025	0.00002	1	SW846 6020A	06-Apr-16	07-Apr-16	edt	1605539	X
7440-43-9	Cadmium	0.00005	J	mg/l	0.00025	0.000007	1	"	"	"	"	"	X
7440-50-8	Copper	0.00148		mg/l	0.00025	0.00002	1	"	"	"	"	"	X
7440-66-6	Zinc	0.00844	R06, J	mg/l	0.00870	0.00012	1	"	"	"	"	"	X

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Sample Identification

SW-BB-1/20160330

SC19667-06

Client Project #

08-14218H

Matrix

Surface Water

Collection Date/Time

30-Mar-16 11:00

Received

31-Mar-16

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260													
Prepared by method SW846 5030 Water MS													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0	0.9	1	SW846 8260C	04-Apr-16	04-Apr-16	GMA	1605473	X
67-64-1	Acetone	< 10.0		µg/l	10.0	3.4	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
71-43-2	Benzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
74-97-5	Bromoform	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
75-27-4	Bromochloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.0		µg/l	2.0	0.6	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 10.0		µg/l	10.0	1.2	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.0		µg/l	2.0	0.5	1	"	"	"	"	"	X
67-66-3	Chloroform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 10.0		µg/l	10.0	1.2	1	"	"	"	"	"	X

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Sample Identification

SW-BB-1/20160330

SC19667-06

Client Project #

08-14218H

Matrix

Surface Water

Collection Date/Time

30-Mar-16 11:00

Received

31-Mar-16

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260													
Prepared by method SW846 5030 Water MS													
98-82-8	Isopropylbenzene	< 1.0		µg/l	1.0	0.3	1	SW846 8260C	04-Apr-16	04-Apr-16	GMA	1605473	X
99-87-6	4-Isopropyltoluene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0	0.9	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-88-3	Toluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
71-55-6	1,1,1-Trichloroethane	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-01-6	Trichloroethene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
95-47-6	o-Xylene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
60-29-7	Ethyl ether	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	6.0	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	12.7	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.0		µg/l	5.0	3.1	1	"	"	"	"	"	X
64-17-5	Ethanol	< 400		µg/l	400	23.6	1	"	"	"	"	"	X

Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	90		70-130 %	"	"	"	"	"	"	"	"	"
2037-26-5	Toluene-d8	101		70-130 %	"	"	"	"	"	"	"	"	"
17060-07-0	1,2-Dichloroethane-d4	110		70-130 %	"	"	"	"	"	"	"	"	"
1868-53-7	Dibromofluoromethane	109		70-130 %	"	"	"	"	"	"	"	"	"

Soluble Metals by EPA 200/6000 Series Methods

Filtration	Field Filtered	N/A	1	EPA 200.7/3005A/601 0	LNB	1605405
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Sample Identification

SW-BB-1/20160330

SC19667-06

Client Project #

08-14218H

Matrix

Surface Water

Collection Date/Time

30-Mar-16 11:00

Received

31-Mar-16

<u>CAS No.</u>	<u>Analyte(s)</u>	<u>Result</u>	<u>Flag</u>	<u>Units</u>	* <u>RDL</u>	<u>MDL</u>	<u>Dilution</u>	<u>Method Ref.</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Analyst</u>	<u>Batch</u>	<u>Cert.</u>
Soluble Metals by EPA 6000/7000 Series Methods													
7440-38-2	Arsenic	< 0.00002	U	mg/l	0.00025	0.00002	1	SW846 6020A	06-Apr-16	07-Apr-16	edt	1605539	X
7440-43-9	Cadmium	0.00002	J	mg/l	0.00025	0.000007	1	"	"	"	"	"	X
7440-50-8	Copper	0.00081		mg/l	0.00025	0.00002	1	"	"	"	"	"	X
7440-66-6	Zinc	0.00590	R06, J	mg/l	0.00870	0.00012	1	"	"	"	"	"	X

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Sample Identification

SW-BB-2/20160330

SC19667-07

Client Project #

08-14218H

Matrix

Surface Water

Collection Date/Time

30-Mar-16 11:30

Received

31-Mar-16

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260													
Prepared by method SW846 5030 Water MS													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0	0.9	1	SW846 8260C	04-Apr-16	04-Apr-16	GMA	1605473	X
67-64-1	Acetone	< 10.0		µg/l	10.0	3.4	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
71-43-2	Benzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
74-97-5	Bromo(chloromethane	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.0		µg/l	2.0	0.6	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 10.0		µg/l	10.0	1.2	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.0		µg/l	2.0	0.5	1	"	"	"	"	"	X
67-66-3	Chloroform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 10.0		µg/l	10.0	1.2	1	"	"	"	"	"	X

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Sample Identification

SW-BB-2/20160330

SC19667-07

Client Project #

08-14218H

Matrix

Surface Water

Collection Date/Time

30-Mar-16 11:30

Received

31-Mar-16

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260													
Prepared by method SW846 5030 Water MS													
98-82-8	Isopropylbenzene	< 1.0		µg/l	1.0	0.3	1	SW846 8260C	04-Apr-16	04-Apr-16	GMA	1605473	X
99-87-6	4-Isopropyltoluene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0	0.9	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-88-3	Toluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
71-55-6	1,1,1-Trichloroethane	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-01-6	Trichloroethene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
95-47-6	o-Xylene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
60-29-7	Ethyl ether	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	6.0	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	12.7	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.0		µg/l	5.0	3.1	1	"	"	"	"	"	X
64-17-5	Ethanol	< 400		µg/l	400	23.6	1	"	"	"	"	"	X

Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	90		70-130 %	"	"	"	"	"	"	"	"	"
2037-26-5	Toluene-d8	100		70-130 %	"	"	"	"	"	"	"	"	"
17060-07-0	1,2-Dichloroethane-d4	107		70-130 %	"	"	"	"	"	"	"	"	"
1868-53-7	Dibromofluoromethane	109		70-130 %	"	"	"	"	"	"	"	"	"

Soluble Metals by EPA 200/6000 Series Methods

Filtration	Field Filtered	N/A	1	EPA 200.7/3005A/601 0	LNB	1605405
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Sample Identification

SW-BB-2/20160330

SC19667-07

Client Project #

08-14218H

Matrix

Surface Water

Collection Date/Time

30-Mar-16 11:30

Received

31-Mar-16

<u>CAS No.</u>	<u>Analyte(s)</u>	<u>Result</u>	<u>Flag</u>	<u>Units</u>	* <u>RDL</u>	<u>MDL</u>	<u>Dilution</u>	<u>Method Ref.</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Analyst</u>	<u>Batch</u>	<u>Cert.</u>
Soluble Metals by EPA 6000/7000 Series Methods													
7440-38-2	Arsenic	0.00002	J	mg/l	0.00025	0.00002	1	SW846 6020A	06-Apr-16	07-Apr-16	edt	1605539	X
7440-43-9	Cadmium	0.00002	J	mg/l	0.00025	0.000007	1	"	"	"	"	"	X
7440-50-8	Copper	0.00079		mg/l	0.00025	0.00002	1	"	"	"	"	"	X
7440-66-6	Zinc	0.00613	R06, J	mg/l	0.00870	0.00012	1	"	"	"	"	"	X

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Sample Identification

MW-44D/20160330

SC19667-08

Client Project #

08-14218H

Matrix

Ground Water

Collection Date/Time

30-Mar-16 12:25

Received

31-Mar-16

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260													
Prepared by method SW846 5030 Water MS													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0	0.9	1	SW846 8260C	04-Apr-16	04-Apr-16	GMA	1605473	X
67-64-1	Acetone	< 10.0		µg/l	10.0	3.4	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
71-43-2	Benzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
74-97-5	Bromochloromethane	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.0		µg/l	2.0	0.6	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 10.0		µg/l	10.0	1.2	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.0		µg/l	2.0	0.5	1	"	"	"	"	"	X
67-66-3	Chloroform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	97.7		µg/l	1.0	0.2	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 10.0		µg/l	10.0	1.2	1	"	"	"	"	"	X

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Sample Identification

MW-44D/20160330

SC19667-08

Client Project #

08-14218H

Matrix

Ground Water

Collection Date/Time

30-Mar-16 12:25

Received

31-Mar-16

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260													
Prepared by method SW846 5030 Water MS													
98-82-8	Isopropylbenzene	< 1.0		µg/l	1.0	0.3	1	SW846 8260C	04-Apr-16	04-Apr-16	GMA	1605473	X
99-87-6	4-Isopropyltoluene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0	0.9	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	33.4		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-88-3	Toluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
71-55-6	1,1,1-Trichloroethane	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-01-6	Trichloroethene	62.5		µg/l	1.0	0.4	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	5.3		µg/l	1.0	0.5	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
95-47-6	o-Xylene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
60-29-7	Ethyl ether	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	6.0	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	12.7	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.0		µg/l	5.0	3.1	1	"	"	"	"	"	X
64-17-5	Ethanol	< 400		µg/l	400	23.6	1	"	"	"	"	"	X

Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	91		70-130 %	"	"	"	"	"	"	"	"	"
2037-26-5	Toluene-d8	102		70-130 %	"	"	"	"	"	"	"	"	"
17060-07-0	1,2-Dichloroethane-d4	109		70-130 %	"	"	"	"	"	"	"	"	"
1868-53-7	Dibromofluoromethane	109		70-130 %	"	"	"	"	"	"	"	"	"

Total Metals by EPA 200/6000 Series Methods

Preservation	Field Preserved	N/A	1	EPA 200/6000 methods	LNB	1605420
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Total Metals by EPA 6000/7000 Series Methods*This laboratory report is not valid without an authorized signature on the cover page.*

Sample Identification

MW-44D/20160330

SC19667-08

Client Project #

08-14218H

Matrix

Ground Water

Collection Date/Time

30-Mar-16 12:25

Received

31-Mar-16

<u>CAS No.</u>	<u>Analyte(s)</u>	<u>Result</u>	<u>Flag</u>	<u>Units</u>	* <u>RDL</u>	<u>MDL</u>	<u>Dilution</u>	<u>Method Ref.</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Analyst</u>	<u>Batch</u>	<u>Cert.</u>
Total Metals by EPA 6000/7000 Series Methods													
7440-38-2	Arsenic	0.0044		mg/l	0.0040	0.0015	1	SW846 6010C	05-Apr-16	06-Apr-16	EDT	1605535	X
7440-43-9	Cadmium	< 0.0025		mg/l	0.0025	0.0008	1	"	"	"	"	"	X
7440-47-3	Chromium	< 0.0050		mg/l	0.0050	0.0009	1	"	"	"	"	"	X
7440-50-8	Copper	0.0346		mg/l	0.0050	0.0025	1	"	"	07-Apr-16	"	"	X
7440-02-0	Nickel	0.0355		mg/l	0.0050	0.0021	1	"	"	06-Apr-16	"	"	X
7440-66-6	Zinc	0.0457		mg/l	0.0050	0.0024	1	"	"	"	"	"	X

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Sample Identification

MW-43S/20160330

SC19667-09

Client Project #

08-14218H

Matrix

Ground Water

Collection Date/Time

30-Mar-16 13:00

Received

31-Mar-16

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260													
Prepared by method SW846 5030 Water MS													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0	0.9	1	SW846 8260C	04-Apr-16	04-Apr-16	GMA	1605473	X
67-64-1	Acetone	< 10.0		µg/l	10.0	3.4	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
71-43-2	Benzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
74-97-5	Bromo(chloromethane	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.0		µg/l	2.0	0.6	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 10.0		µg/l	10.0	1.2	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.0		µg/l	2.0	0.5	1	"	"	"	"	"	X
67-66-3	Chloroform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	8.3		µg/l	1.0	0.2	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 10.0		µg/l	10.0	1.2	1	"	"	"	"	"	X

This laboratory report is not valid without an authorized signature on the cover page.

Sample Identification

MW-43S/20160330

SC19667-09

Client Project #

08-14218H

Matrix

Ground Water

Collection Date/Time

30-Mar-16 13:00

Received

31-Mar-16

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260													
Prepared by method SW846 5030 Water MS													
98-82-8	Isopropylbenzene	< 1.0		µg/l	1.0	0.3	1	SW846 8260C	04-Apr-16	04-Apr-16	GMA	1605473	X
99-87-6	4-Isopropyltoluene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0	0.9	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	9.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-88-3	Toluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
71-55-6	1,1,1-Trichloroethane	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-01-6	Trichloroethene	8.6		µg/l	1.0	0.4	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
95-47-6	o-Xylene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
60-29-7	Ethyl ether	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	6.0	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	12.7	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten	< 5.0		µg/l	5.0	3.1	1	"	"	"	"	"	X
64-17-5	Ethanol	< 400		µg/l	400	23.6	1	"	"	"	"	"	X

Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	91		70-130 %	"	"	"	"	"	"	"	"	"
2037-26-5	Toluene-d8	102		70-130 %	"	"	"	"	"	"	"	"	"
17060-07-0	1,2-Dichloroethane-d4	107		70-130 %	"	"	"	"	"	"	"	"	"
1868-53-7	Dibromofluoromethane	109		70-130 %	"	"	"	"	"	"	"	"	"

Total Metals by EPA 200/6000 Series Methods

Preservation	Field Preserved	N/A	1	EPA 200/6000 methods	LNB	1605420
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Total Metals by EPA 6000/7000 Series Methods*This laboratory report is not valid without an authorized signature on the cover page.*

Sample Identification

MW-43S/20160330

SC19667-09

Client Project #

08-14218H

Matrix

Ground Water

Collection Date/Time

30-Mar-16 13:00

Received

31-Mar-16

<u>CAS No.</u>	<u>Analyte(s)</u>	<u>Result</u>	<u>Flag</u>	<u>Units</u>	* <u>RDL</u>	<u>MDL</u>	<u>Dilution</u>	<u>Method Ref.</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Analyst</u>	<u>Batch</u>	<u>Cert.</u>
Total Metals by EPA 6000/7000 Series Methods													
7440-38-2	Arsenic	0.0157		mg/l	0.0040	0.0015	1	SW846 6010C	05-Apr-16	06-Apr-16	EDT	1605535	X
7440-43-9	Cadmium	< 0.0025		mg/l	0.0025	0.0008	1	"	"	"	"	"	X
7440-47-3	Chromium	< 0.0050		mg/l	0.0050	0.0009	1	"	"	"	"	"	X
7440-50-8	Copper	0.0158		mg/l	0.0050	0.0025	1	"	"	07-Apr-16	"	"	X
7440-02-0	Nickel	0.0134		mg/l	0.0050	0.0021	1	"	"	06-Apr-16	"	"	X
7440-66-6	Zinc	0.0206		mg/l	0.0050	0.0024	1	"	"	"	"	"	X

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Sample Identification

MW-43D/20160330

SC19667-10

Client Project #

08-14218H

Matrix

Ground Water

Collection Date/Time

30-Mar-16 13:45

Received

31-Mar-16

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260													
Prepared by method SW846 5030 Water MS													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0	0.9	1	SW846 8260C	04-Apr-16	04-Apr-16	GMA	1605473	X
67-64-1	Acetone	< 10.0		µg/l	10.0	3.4	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
71-43-2	Benzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
74-97-5	Bromoform	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
75-27-4	Bromochloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.0		µg/l	2.0	0.6	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 10.0		µg/l	10.0	1.2	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.0		µg/l	2.0	0.5	1	"	"	"	"	"	X
67-66-3	Chloroform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	59.6		µg/l	1.0	0.2	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 10.0		µg/l	10.0	1.2	1	"	"	"	"	"	X

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Sample Identification

MW-43D/20160330

SC19667-10

Client Project #

08-14218H

Matrix

Ground Water

Collection Date/Time

30-Mar-16 13:45

Received

31-Mar-16

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260													
Prepared by method SW846 5030 Water MS													
98-82-8	Isopropylbenzene	< 1.0		µg/l	1.0	0.3	1	SW846 8260C	04-Apr-16	04-Apr-16	GMA	1605473	X
99-87-6	4-Isopropyltoluene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0	0.9	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	23.4		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-88-3	Toluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
71-55-6	1,1,1-Trichloroethane	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-01-6	Trichloroethene	42.2		µg/l	1.0	0.4	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	2.5		µg/l	1.0	0.5	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
95-47-6	o-Xylene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
60-29-7	Ethyl ether	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	6.0	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	12.7	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.0		µg/l	5.0	3.1	1	"	"	"	"	"	X
64-17-5	Ethanol	< 400		µg/l	400	23.6	1	"	"	"	"	"	X

Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	89		70-130 %	"	"	"	"	"	"	"	"	"
2037-26-5	Toluene-d8	102		70-130 %	"	"	"	"	"	"	"	"	"
17060-07-0	1,2-Dichloroethane-d4	107		70-130 %	"	"	"	"	"	"	"	"	"
1868-53-7	Dibromofluoromethane	108		70-130 %	"	"	"	"	"	"	"	"	"

Total Metals by EPA 200/6000 Series Methods

Preservation	Field Preserved	N/A	1	EPA 200/6000 methods	LNB	1605420
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Total Metals by EPA 6000/7000 Series Methods*This laboratory report is not valid without an authorized signature on the cover page.*

Sample Identification

MW-43D/20160330

SC19667-10

Client Project #

08-14218H

Matrix

Ground Water

Collection Date/Time

30-Mar-16 13:45

Received

31-Mar-16

<u>CAS No.</u>	<u>Analyte(s)</u>	<u>Result</u>	<u>Flag</u>	<u>Units</u>	<u>*RDL</u>	<u>MDL</u>	<u>Dilution</u>	<u>Method Ref.</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Analyst</u>	<u>Batch</u>	<u>Cert.</u>
Total Metals by EPA 6000/7000 Series Methods													
7440-38-2	Arsenic	< 0.0040		mg/l	0.0040	0.0015	1	SW846 6010C	05-Apr-16	06-Apr-16	EDT	1605535	X
7440-43-9	Cadmium	0.0025		mg/l	0.0025	0.0008	1	"	"	"	"	"	X
7440-47-3	Chromium	< 0.0050		mg/l	0.0050	0.0009	1	"	"	"	"	"	X
7440-50-8	Copper	0.536		mg/l	0.0050	0.0025	1	"	"	07-Apr-16	"	"	X
7440-02-0	Nickel	0.141		mg/l	0.0050	0.0021	1	"	"	06-Apr-16	"	"	X
7440-66-6	Zinc	0.490		mg/l	0.0050	0.0024	1	"	"	"	"	"	X

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Sample Identification

MW-42S/20160330

SC19667-11

Client Project #

08-14218H

Matrix

Ground Water

Collection Date/Time

30-Mar-16 15:25

Received

31-Mar-16

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260													
Prepared by method SW846 5030 Water MS													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0	0.9	1	SW846 8260C	04-Apr-16	04-Apr-16	GMA	1605473	X
67-64-1	Acetone	< 10.0		µg/l	10.0	3.4	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
71-43-2	Benzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
74-97-5	Bromo(chloromethane	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.0		µg/l	2.0	0.6	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 10.0		µg/l	10.0	1.2	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.0		µg/l	2.0	0.5	1	"	"	"	"	"	X
67-66-3	Chloroform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	7.6		µg/l	1.0	0.2	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 10.0		µg/l	10.0	1.2	1	"	"	"	"	"	X

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Sample Identification

MW-42S/20160330

SC19667-11

Client Project #

08-14218H

Matrix

Ground Water

Collection Date/Time

30-Mar-16 15:25

Received

31-Mar-16

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260													
Prepared by method SW846 5030 Water MS													
98-82-8	Isopropylbenzene	< 1.0		µg/l	1.0	0.3	1	SW846 8260C	04-Apr-16	04-Apr-16	GMA	1605473	X
99-87-6	4-Isopropyltoluene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0	0.9	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	3.7		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-88-3	Toluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
71-55-6	1,1,1-Trichloroethane	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-01-6	Trichloroethene	4.6		µg/l	1.0	0.4	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
95-47-6	o-Xylene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
60-29-7	Ethyl ether	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	6.0	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	12.7	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten	< 5.0		µg/l	5.0	3.1	1	"	"	"	"	"	X
64-17-5	Ethanol	< 400		µg/l	400	23.6	1	"	"	"	"	"	X

Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	90		70-130 %	"	"	"	"	"	"	"	"	"
2037-26-5	Toluene-d8	101		70-130 %	"	"	"	"	"	"	"	"	"
17060-07-0	1,2-Dichloroethane-d4	107		70-130 %	"	"	"	"	"	"	"	"	"
1868-53-7	Dibromofluoromethane	108		70-130 %	"	"	"	"	"	"	"	"	"

Total Metals by EPA 200/6000 Series Methods

Preservation	Field Preserved	N/A	1	EPA 200/6000 methods	LNB	1605420
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Total Metals by EPA 6000/7000 Series Methods*This laboratory report is not valid without an authorized signature on the cover page.*

Sample Identification

MW-42S/20160330

SC19667-11

Client Project #

08-14218H

Matrix

Ground Water

Collection Date/Time

30-Mar-16 15:25

Received

31-Mar-16

<u>CAS No.</u>	<u>Analyte(s)</u>	<u>Result</u>	<u>Flag</u>	<u>Units</u>	<u>*RDL</u>	<u>MDL</u>	<u>Dilution</u>	<u>Method Ref.</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Analyst</u>	<u>Batch</u>	<u>Cert.</u>
Total Metals by EPA 6000/7000 Series Methods													
7440-38-2	Arsenic	< 0.0040		mg/l	0.0040	0.0015	1	SW846 6010C	05-Apr-16	06-Apr-16	EDT	1605535	X
7440-43-9	Cadmium	< 0.0025		mg/l	0.0025	0.0008	1	"	"	"	"	"	X
7440-47-3	Chromium	< 0.0050		mg/l	0.0050	0.0009	1	"	"	"	"	"	X
7440-50-8	Copper	0.0218		mg/l	0.0050	0.0025	1	"	"	07-Apr-16	"	"	X
7440-02-0	Nickel	0.0268		mg/l	0.0050	0.0021	1	"	"	06-Apr-16	"	"	X
7440-66-6	Zinc	0.0882		mg/l	0.0050	0.0024	1	"	"	"	"	"	X

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Sample Identification

MW-41S/20160330

SC19667-12

Client Project #

08-14218H

Matrix

Ground Water

Collection Date/Time

30-Mar-16 15:15

Received

31-Mar-16

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260													
Prepared by method SW846 5030 Water MS													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0	0.9	1	SW846 8260C	04-Apr-16	04-Apr-16	GMA	1605473	X
67-64-1	Acetone	< 10.0		µg/l	10.0	3.4	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
71-43-2	Benzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
74-97-5	Bromo(chloromethane	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.0		µg/l	2.0	0.6	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 10.0		µg/l	10.0	1.2	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.0		µg/l	2.0	0.5	1	"	"	"	"	"	X
67-66-3	Chloroform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	2.4		µg/l	1.0	0.2	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 10.0		µg/l	10.0	1.2	1	"	"	"	"	"	X

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Sample Identification

MW-41S/20160330

SC19667-12

Client Project #

08-14218H

Matrix

Ground Water

Collection Date/Time

30-Mar-16 15:15

Received

31-Mar-16

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260													
Prepared by method SW846 5030 Water MS													
98-82-8	Isopropylbenzene	< 1.0		µg/l	1.0	0.3	1	SW846 8260C	04-Apr-16	04-Apr-16	GMA	1605473	X
99-87-6	4-Isopropyltoluene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0	0.9	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	1.5		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-88-3	Toluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
71-55-6	1,1,1-Trichloroethane	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-01-6	Trichloroethene	1.6		µg/l	1.0	0.4	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
95-47-6	o-Xylene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
60-29-7	Ethyl ether	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	6.0	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	12.7	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten	< 5.0		µg/l	5.0	3.1	1	"	"	"	"	"	X
64-17-5	Ethanol	< 400		µg/l	400	23.6	1	"	"	"	"	"	X

Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	91		70-130 %	"	"	"	"	"	"	"	"	"
2037-26-5	Toluene-d8	100		70-130 %	"	"	"	"	"	"	"	"	"
17060-07-0	1,2-Dichloroethane-d4	108		70-130 %	"	"	"	"	"	"	"	"	"
1868-53-7	Dibromofluoromethane	108		70-130 %	"	"	"	"	"	"	"	"	"

Total Metals by EPA 200/6000 Series Methods

Preservation	Field Preserved	N/A	1	EPA 200/6000 methods	LNB	1605420
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Total Metals by EPA 6000/7000 Series Methods*This laboratory report is not valid without an authorized signature on the cover page.*

Sample Identification

MW-41S/20160330

SC19667-12

Client Project #

08-14218H

Matrix

Ground Water

Collection Date/Time

30-Mar-16 15:15

Received

31-Mar-16

<u>CAS No.</u>	<u>Analyte(s)</u>	<u>Result</u>	<u>Flag</u>	<u>Units</u>	<u>*RDL</u>	<u>MDL</u>	<u>Dilution</u>	<u>Method Ref.</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Analyst</u>	<u>Batch</u>	<u>Cert.</u>
Total Metals by EPA 6000/7000 Series Methods													
7440-38-2	Arsenic	< 0.0040		mg/l	0.0040	0.0015	1	SW846 6010C	05-Apr-16	06-Apr-16	EDT	1605535	X
7440-43-9	Cadmium	< 0.0025		mg/l	0.0025	0.0008	1	"	"	"	"	"	X
7440-47-3	Chromium	< 0.0050		mg/l	0.0050	0.0009	1	"	"	"	"	"	X
7440-50-8	Copper	< 0.0050		mg/l	0.0050	0.0025	1	"	"	07-Apr-16	"	"	X
7440-02-0	Nickel	< 0.0050		mg/l	0.0050	0.0021	1	"	"	06-Apr-16	"	"	X
7440-66-6	Zinc	0.0218		mg/l	0.0050	0.0024	1	"	"	"	"	"	X

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Sample Identification

MW-41D/20160330

SC19667-13

Client Project #

08-14218H

Matrix

Ground Water

Collection Date/Time

30-Mar-16 13:45

Received

31-Mar-16

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260													
Prepared by method SW846 5030 Water MS													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0	0.9	1	SW846 8260C	04-Apr-16	04-Apr-16	GMA	1605473	X
67-64-1	Acetone	< 10.0		µg/l	10.0	3.4	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
71-43-2	Benzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
74-97-5	Bromochloromethane	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.0		µg/l	2.0	0.6	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 10.0		µg/l	10.0	1.2	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.0		µg/l	2.0	0.5	1	"	"	"	"	"	X
67-66-3	Chloroform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	19.3		µg/l	1.0	0.2	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 10.0		µg/l	10.0	1.2	1	"	"	"	"	"	X

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Sample Identification

MW-41D/20160330

SC19667-13

Client Project #

08-14218H

Matrix

Ground Water

Collection Date/Time

30-Mar-16 13:45

Received

31-Mar-16

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260													
Prepared by method SW846 5030 Water MS													
98-82-8	Isopropylbenzene	< 1.0		µg/l	1.0	0.3	1	SW846 8260C	04-Apr-16	04-Apr-16	GMA	1605473	X
99-87-6	4-Isopropyltoluene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0	0.9	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	5.1		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-88-3	Toluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
71-55-6	1,1,1-Trichloroethane	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-01-6	Trichloroethene	8.5		µg/l	1.0	0.4	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
95-47-6	o-Xylene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
60-29-7	Ethyl ether	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	6.0	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	12.7	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.0		µg/l	5.0	3.1	1	"	"	"	"	"	X
64-17-5	Ethanol	< 400		µg/l	400	23.6	1	"	"	"	"	"	X

Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	91		70-130 %	"	"	"	"	"	"	"	"	"
2037-26-5	Toluene-d8	100		70-130 %	"	"	"	"	"	"	"	"	"
17060-07-0	1,2-Dichloroethane-d4	110		70-130 %	"	"	"	"	"	"	"	"	"
1868-53-7	Dibromofluoromethane	109		70-130 %	"	"	"	"	"	"	"	"	"

Total Metals by EPA 200/6000 Series Methods

Preservation	Field Preserved	N/A	1	EPA 200/6000 methods	LNB	1605420
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Total Metals by EPA 6000/7000 Series Methods*This laboratory report is not valid without an authorized signature on the cover page.*

Sample Identification

MW-41D/20160330

SC19667-13

Client Project #

08-14218H

Matrix

Ground Water

Collection Date/Time

30-Mar-16 13:45

Received

31-Mar-16

<u>CAS No.</u>	<u>Analyte(s)</u>	<u>Result</u>	<u>Flag</u>	<u>Units</u>	<u>*RDL</u>	<u>MDL</u>	<u>Dilution</u>	<u>Method Ref.</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Analyst</u>	<u>Batch</u>	<u>Cert.</u>
Total Metals by EPA 6000/7000 Series Methods													
7440-38-2	Arsenic	< 0.0040		mg/l	0.0040	0.0015	1	SW846 6010C	05-Apr-16	06-Apr-16	EDT	1605535	X
7440-43-9	Cadmium	< 0.0025		mg/l	0.0025	0.0008	1	"	"	"	"	"	X
7440-47-3	Chromium	< 0.0050		mg/l	0.0050	0.0009	1	"	"	"	"	"	X
7440-50-8	Copper	< 0.0050		mg/l	0.0050	0.0025	1	"	"	07-Apr-16	"	"	X
7440-02-0	Nickel	< 0.0050		mg/l	0.0050	0.0021	1	"	"	06-Apr-16	"	"	X
7440-66-6	Zinc	0.0054		mg/l	0.0050	0.0024	1	"	"	"	"	"	X

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Sample Identification

TB-20160331

SC19667-14

Client Project #

08-14218H

Matrix

Trip Blank

Collection Date/Time

31-Mar-16 09:00

Received

31-Mar-16

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
<u>Volatile Organic Compounds by SW846 8260</u>													
<u>Prepared by method SW846 5030 Water MS</u>													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0	0.9	1	SW846 8260C	04-Apr-16	05-Apr-16	GMA	1605474	X
67-64-1	Acetone	< 10.0		µg/l	10.0	3.4	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
71-43-2	Benzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
74-97-5	Bromochloromethane	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.0		µg/l	2.0	0.6	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 10.0		µg/l	10.0	1.2	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.0		µg/l	2.0	0.5	1	"	"	"	"	"	X
67-66-3	Chloroform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 10.0		µg/l	10.0	1.2	1	"	"	"	"	"	X

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Sample Identification

TB-20160331

SC19667-14

Client Project #

08-14218H

Matrix

Trip Blank

Collection Date/Time

31-Mar-16 09:00

Received

31-Mar-16

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
<u>Volatile Organic Compounds by SW846 8260</u>													
<u>Prepared by method SW846 5030 Water MS</u>													
98-82-8	Isopropylbenzene	< 1.0		µg/l	1.0	0.3	1	SW846 8260C	04-Apr-16	05-Apr-16	GMA	1605474	X
99-87-6	4-Isopropyltoluene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0	0.9	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-88-3	Toluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
71-55-6	1,1,1-Trichloroethane	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-01-6	Trichloroethene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
95-47-6	o-Xylene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
60-29-7	Ethyl ether	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	6.0	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	12.7	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.0		µg/l	5.0	3.1	1	"	"	"	"	"	X
64-17-5	Ethanol	< 400		µg/l	400	23.6	1	"	"	"	"	"	X

Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	92	70-130 %	"	"	"	"	"
2037-26-5	Toluene-d8	101	70-130 %	"	"	"	"	"
17060-07-0	1,2-Dichloroethane-d4	109	70-130 %	"	"	"	"	"
1868-53-7	Dibromofluoromethane	110	70-130 %	"	"	"	"	"

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Sample Identification

EB-20160331

SC19667-15

Client Project #

08-14218H

Matrix

Equipment Blank

Collection Date/Time

31-Mar-16 12:00

Received

31-Mar-16

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260													
Prepared by method SW846 5030 Water MS													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0	0.9	1	SW846 8260C	04-Apr-16	05-Apr-16	GMA	1605474	X
67-64-1	Acetone	< 10.0		µg/l	10.0	3.4	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
71-43-2	Benzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
74-97-5	Bromo(chloromethane	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.0		µg/l	2.0	0.6	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 10.0		µg/l	10.0	1.2	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.0		µg/l	2.0	0.5	1	"	"	"	"	"	X
67-66-3	Chloroform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 10.0		µg/l	10.0	1.2	1	"	"	"	"	"	X

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Sample Identification

EB-20160331

SC19667-15

Client Project #

08-14218H

Matrix

Equipment Blank

Collection Date/Time

31-Mar-16 12:00

Received

31-Mar-16

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
<u>Volatile Organic Compounds by SW846 8260</u>													
<u>Prepared by method SW846 5030 Water MS</u>													
98-82-8	Isopropylbenzene	< 1.0		µg/l	1.0	0.3	1	SW846 8260C	04-Apr-16	05-Apr-16	GMA	1605474	X
99-87-6	4-Isopropyltoluene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0	0.9	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-88-3	Toluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
71-55-6	1,1,1-Trichloroethane	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-01-6	Trichloroethene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
95-47-6	o-Xylene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
60-29-7	Ethyl ether	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	6.0	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	12.7	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.0		µg/l	5.0	3.1	1	"	"	"	"	"	X
64-17-5	Ethanol	< 400		µg/l	400	23.6	1	"	"	"	"	"	X

Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	92		70-130 %	"	"	"	"	"	"	"	"	"
2037-26-5	Toluene-d8	102		70-130 %	"	"	"	"	"	"	"	"	"
17060-07-0	1,2-Dichloroethane-d4	110		70-130 %	"	"	"	"	"	"	"	"	"
1868-53-7	Dibromofluoromethane	109		70-130 %	"	"	"	"	"	"	"	"	"

Total Metals by EPA 200/6000 Series Methods

Preservation	Field Preserved	N/A	1	EPA 200/6000 methods	LNB	1605420
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Total Metals by EPA 6000/7000 Series Methods*This laboratory report is not valid without an authorized signature on the cover page.*

Sample Identification

EB-20160331

SC19667-15

Client Project #

08-14218H

Matrix

Equipment Blank

Collection Date/Time

31-Mar-16 12:00

Received

31-Mar-16

<u>CAS No.</u>	<u>Analyte(s)</u>	<u>Result</u>	<u>Flag</u>	<u>Units</u>	<u>*RDL</u>	<u>MDL</u>	<u>Dilution</u>	<u>Method Ref.</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Analyst</u>	<u>Batch</u>	<u>Cert.</u>
Total Metals by EPA 6000/7000 Series Methods													
7440-38-2	Arsenic	< 0.0040		mg/l	0.0040	0.0015	1	SW846 6010C	05-Apr-16	06-Apr-16	EDT	1605535	X
7440-43-9	Cadmium	< 0.0025		mg/l	0.0025	0.0008	1	"	"	"	"	"	X
7440-47-3	Chromium	< 0.0050		mg/l	0.0050	0.0009	1	"	"	"	"	"	X
7440-50-8	Copper	< 0.0050		mg/l	0.0050	0.0025	1	"	"	07-Apr-16	"	"	X
7440-02-0	Nickel	< 0.0050		mg/l	0.0050	0.0021	1	"	"	06-Apr-16	"	"	X
7440-66-6	Zinc	0.0074		mg/l	0.0050	0.0024	1	"	"	"	"	"	X

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Sample Identification

DUP-20160331

SC19667-16

Client Project #

08-14218H

Matrix

Ground Water

Collection Date/Time

31-Mar-16 00:00

Received

31-Mar-16

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260													
Prepared by method SW846 5030 Water MS													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0	0.9	1	SW846 8260C	04-Apr-16	05-Apr-16	GMA	1605474	X
67-64-1	Acetone	< 10.0		µg/l	10.0	3.4	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
71-43-2	Benzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
74-97-5	Bromochloromethane	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.0		µg/l	2.0	0.6	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 10.0		µg/l	10.0	1.2	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.0		µg/l	2.0	0.5	1	"	"	"	"	"	X
67-66-3	Chloroform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	53.6		µg/l	1.0	0.2	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 10.0		µg/l	10.0	1.2	1	"	"	"	"	"	X

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Sample Identification

DUP-20160331

SC19667-16

Client Project #

08-14218H

Matrix

Ground Water

Collection Date/Time

31-Mar-16 00:00

Received

31-Mar-16

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260													
Prepared by method SW846 5030 Water MS													
98-82-8	Isopropylbenzene	< 1.0		µg/l	1.0	0.3	1	SW846 8260C	04-Apr-16	05-Apr-16	GMA	1605474	X
99-87-6	4-Isopropyltoluene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0	0.9	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	30.5		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-88-3	Toluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
71-55-6	1,1,1-Trichloroethane	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-01-6	Trichloroethene	40.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	1.1		µg/l	1.0	0.5	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
95-47-6	o-Xylene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
60-29-7	Ethyl ether	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	6.0	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	12.7	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.0		µg/l	5.0	3.1	1	"	"	"	"	"	X
64-17-5	Ethanol	< 400		µg/l	400	23.6	1	"	"	"	"	"	X

Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	90		70-130 %	"	"	"	"	"	"	"	"	"
2037-26-5	Toluene-d8	102		70-130 %	"	"	"	"	"	"	"	"	"
17060-07-0	1,2-Dichloroethane-d4	109		70-130 %	"	"	"	"	"	"	"	"	"
1868-53-7	Dibromofluoromethane	108		70-130 %	"	"	"	"	"	"	"	"	"

Total Metals by EPA 200/6000 Series Methods

Preservation	Field Preserved	N/A	1	EPA 200/6000 methods	LNB	1605420
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Total Metals by EPA 6000/7000 Series Methods*This laboratory report is not valid without an authorized signature on the cover page.*

Sample Identification

DUP-20160331

SC19667-16

Client Project #

08-14218H

Matrix

Ground Water

Collection Date/Time

31-Mar-16 00:00

Received

31-Mar-16

<u>CAS No.</u>	<u>Analyte(s)</u>	<u>Result</u>	<u>Flag</u>	<u>Units</u>	<u>*RDL</u>	<u>MDL</u>	<u>Dilution</u>	<u>Method Ref.</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Analyst</u>	<u>Batch</u>	<u>Cert.</u>
Total Metals by EPA 6000/7000 Series Methods													
7440-38-2	Arsenic	< 0.0040		mg/l	0.0040	0.0015	1	SW846 6010C	05-Apr-16	06-Apr-16	EDT	1605535	X
7440-43-9	Cadmium	< 0.0025		mg/l	0.0025	0.0008	1	"	"	"	"	"	X
7440-47-3	Chromium	0.0055		mg/l	0.0050	0.0009	1	"	"	"	"	"	X
7440-50-8	Copper	0.0747		mg/l	0.0050	0.0025	1	"	"	07-Apr-16	"	"	X
7440-02-0	Nickel	0.0478		mg/l	0.0050	0.0021	1	"	"	06-Apr-16	"	"	X
7440-66-6	Zinc	0.0674		mg/l	0.0050	0.0024	1	"	"	"	"	"	X

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Sample Identification

MW-51D/20160331

SC19667-17

Client Project #

08-14218H

Matrix

Ground Water

Collection Date/Time

31-Mar-16 09:35

Received

31-Mar-16

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260													
Prepared by method SW846 5030 Water MS													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0	0.9	1	SW846 8260C	04-Apr-16	05-Apr-16	GMA	1605474	X
67-64-1	Acetone	< 10.0		µg/l	10.0	3.4	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
71-43-2	Benzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
74-97-5	Bromoform	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
75-27-4	Bromochloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.0		µg/l	2.0	0.6	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 10.0		µg/l	10.0	1.2	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.0		µg/l	2.0	0.5	1	"	"	"	"	"	X
67-66-3	Chloroform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	50.8		µg/l	1.0	0.2	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 10.0		µg/l	10.0	1.2	1	"	"	"	"	"	X

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Sample Identification

MW-51D/20160331

SC19667-17

Client Project #

08-14218H

Matrix

Ground Water

Collection Date/Time

31-Mar-16 09:35

Received

31-Mar-16

<u>CAS No.</u>	<u>Analyte(s)</u>	<u>Result</u>	<u>Flag</u>	<u>Units</u>	* <u>RDL</u>	<u>MDL</u>	<u>Dilution</u>	<u>Method Ref.</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Analyst</u>	<u>Batch</u>	<u>Cert.</u>
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260													
Prepared by method SW846 5030 Water MS													
98-82-8	Isopropylbenzene	< 1.0		µg/l	1.0	0.3	1	SW846 8260C	04-Apr-16	05-Apr-16	GMA	1605474	X
99-87-6	4-Isopropyltoluene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0	0.9	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	29.7		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-88-3	Toluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
71-55-6	1,1,1-Trichloroethane	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-01-6	Trichloroethene	38.1		µg/l	1.0	0.4	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
95-47-6	o-Xylene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
60-29-7	Ethyl ether	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	6.0	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	12.7	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten	< 5.0		µg/l	5.0	3.1	1	"	"	"	"	"	X
64-17-5	Ethanol	< 400		µg/l	400	23.6	1	"	"	"	"	"	X

Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	90		70-130 %	"	"	"	"	"	"	"	"	"
2037-26-5	Toluene-d8	101		70-130 %	"	"	"	"	"	"	"	"	"
17060-07-0	1,2-Dichloroethane-d4	107		70-130 %	"	"	"	"	"	"	"	"	"
1868-53-7	Dibromofluoromethane	109		70-130 %	"	"	"	"	"	"	"	"	"

Total Metals by EPA 200/6000 Series Methods

Preservation	Field Preserved	N/A	1	EPA 200/6000 methods	LNB	1605420
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Total Metals by EPA 6000/7000 Series Methods*This laboratory report is not valid without an authorized signature on the cover page.*

Sample Identification

MW-51D/20160331

SC19667-17

Client Project #

08-14218H

Matrix

Ground Water

Collection Date/Time

31-Mar-16 09:35

Received

31-Mar-16

<u>CAS No.</u>	<u>Analyte(s)</u>	<u>Result</u>	<u>Flag</u>	<u>Units</u>	<u>*RDL</u>	<u>MDL</u>	<u>Dilution</u>	<u>Method Ref.</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Analyst</u>	<u>Batch</u>	<u>Cert.</u>
Total Metals by EPA 6000/7000 Series Methods													
7440-38-2	Arsenic	< 0.0040		mg/l	0.0040	0.0015	1	SW846 6010C	05-Apr-16	06-Apr-16	EDT	1605535	X
7440-43-9	Cadmium	< 0.0025		mg/l	0.0025	0.0008	1	"	"	"	"	"	X
7440-47-3	Chromium	0.0056		mg/l	0.0050	0.0009	1	"	"	"	"	"	X
7440-50-8	Copper	0.0786		mg/l	0.0050	0.0025	1	"	"	07-Apr-16	"	"	X
7440-02-0	Nickel	0.0472		mg/l	0.0050	0.0021	1	"	"	06-Apr-16	"	"	X
7440-66-6	Zinc	0.0676		mg/l	0.0050	0.0024	1	"	"	"	"	"	X

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Sample Identification

MW-50S/20160331

SC19667-18

Client Project #

08-14218H

Matrix

Ground Water

Collection Date/Time

31-Mar-16 09:25

Received

31-Mar-16

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260													
Prepared by method SW846 5030 Water MS													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0	0.9	1	SW846 8260C	04-Apr-16	05-Apr-16	GMA	1605474	X
67-64-1	Acetone	< 10.0		µg/l	10.0	3.4	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
71-43-2	Benzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
74-97-5	Bromochloromethane	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.0		µg/l	2.0	0.6	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 10.0		µg/l	10.0	1.2	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.0		µg/l	2.0	0.5	1	"	"	"	"	"	X
67-66-3	Chloroform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	46.3		µg/l	1.0	0.2	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 10.0		µg/l	10.0	1.2	1	"	"	"	"	"	X

This laboratory report is not valid without an authorized signature on the cover page.

Sample Identification

MW-50S/20160331

SC19667-18

Client Project #

08-14218H

Matrix

Ground Water

Collection Date/Time

31-Mar-16 09:25

Received

31-Mar-16

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260													
Prepared by method SW846 5030 Water MS													
98-82-8	Isopropylbenzene	< 1.0		µg/l	1.0	0.3	1	SW846 8260C	04-Apr-16	05-Apr-16	GMA	1605474	X
99-87-6	4-Isopropyltoluene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0	0.9	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	11.3		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-88-3	Toluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
71-55-6	1,1,1-Trichloroethane	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-01-6	Trichloroethene	18.6		µg/l	1.0	0.4	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
95-47-6	o-Xylene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
60-29-7	Ethyl ether	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	6.0	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	12.7	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.0		µg/l	5.0	3.1	1	"	"	"	"	"	X
64-17-5	Ethanol	< 400		µg/l	400	23.6	1	"	"	"	"	"	X

Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	91		70-130 %	"	"	"	"	"	"	"	"	"
2037-26-5	Toluene-d8	100		70-130 %	"	"	"	"	"	"	"	"	"
17060-07-0	1,2-Dichloroethane-d4	95		70-130 %	"	"	"	"	"	"	"	"	"
1868-53-7	Dibromofluoromethane	94		70-130 %	"	"	"	"	"	"	"	"	"

Total Metals by EPA 200/6000 Series Methods

Preservation	Field Preserved	N/A	1	EPA 200/6000 methods	LNB	1605493
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Total Metals by EPA 6000/7000 Series Methods*This laboratory report is not valid without an authorized signature on the cover page.*

Sample Identification

MW-50S/20160331

SC19667-18

Client Project #

08-14218H

Matrix

Ground Water

Collection Date/Time

31-Mar-16 09:25

Received

31-Mar-16

<u>CAS No.</u>	<u>Analyte(s)</u>	<u>Result</u>	<u>Flag</u>	<u>Units</u>	<u>*RDL</u>	<u>MDL</u>	<u>Dilution</u>	<u>Method Ref.</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Analyst</u>	<u>Batch</u>	<u>Cert.</u>
Total Metals by EPA 6000/7000 Series Methods													
7440-38-2	Arsenic	< 0.0040		mg/l	0.0040	0.0015	1	SW846 6010C	05-Apr-16	06-Apr-16	EDT	1605535	X
7440-43-9	Cadmium	< 0.0025		mg/l	0.0025	0.0008	1	"	"	"	"	"	X
7440-47-3	Chromium	< 0.0050		mg/l	0.0050	0.0009	1	"	"	"	"	"	X
7440-50-8	Copper	0.0056		mg/l	0.0050	0.0025	1	"	"	07-Apr-16	"	"	X
7440-02-0	Nickel	0.0067		mg/l	0.0050	0.0021	1	"	"	06-Apr-16	"	"	X
7440-66-6	Zinc	0.0932		mg/l	0.0050	0.0024	1	"	"	"	"	"	X

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Sample Identification

MW-53D/20160331

SC19667-19

Client Project #

08-14218H

Matrix

Ground Water

Collection Date/Time

31-Mar-16 10:40

Received

31-Mar-16

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260													
Prepared by method SW846 5030 Water MS													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0	0.9	1	SW846 8260C	05-Apr-16	05-Apr-16	GMA	1605556	X
67-64-1	Acetone	< 10.0		µg/l	10.0	3.4	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
71-43-2	Benzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
74-97-5	Bromoform	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
75-27-4	Bromochloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.0		µg/l	2.0	0.6	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 10.0		µg/l	10.0	1.2	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.0		µg/l	2.0	0.5	1	"	"	"	"	"	X
67-66-3	Chloroform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	69.8		µg/l	1.0	0.2	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 10.0		µg/l	10.0	1.2	1	"	"	"	"	"	X

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Sample Identification

MW-53D/20160331

SC19667-19

Client Project #

08-14218H

Matrix

Ground Water

Collection Date/Time

31-Mar-16 10:40

Received

31-Mar-16

<u>CAS No.</u>	<u>Analyte(s)</u>	<u>Result</u>	<u>Flag</u>	<u>Units</u>	* <u>RDL</u>	<u>MDL</u>	<u>Dilution</u>	<u>Method Ref.</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Analyst</u>	<u>Batch</u>	<u>Cert.</u>
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260													
Prepared by method SW846 5030 Water MS													
98-82-8	Isopropylbenzene	< 1.0		µg/l	1.0	0.3	1	SW846 8260C	05-Apr-16	05-Apr-16	GMA	1605556	X
99-87-6	4-Isopropyltoluene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0	0.9	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	14.2		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-88-3	Toluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
71-55-6	1,1,1-Trichloroethane	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
79-01-6	Trichloroethene	25.4		µg/l	1.0	0.4	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	2.6		µg/l	1.0	0.5	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 2.0		µg/l	2.0	0.3	1	"	"	"	"	"	X
95-47-6	o-Xylene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
60-29-7	Ethyl ether	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	6.0	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	12.7	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten	< 5.0		µg/l	5.0	3.1	1	"	"	"	"	"	X
64-17-5	Ethanol	< 400		µg/l	400	23.6	1	"	"	"	"	"	X

Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	94		70-130 %	"	"	"	"	"	"	"	"	"
2037-26-5	Toluene-d8	99		70-130 %	"	"	"	"	"	"	"	"	"
17060-07-0	1,2-Dichloroethane-d4	102		70-130 %	"	"	"	"	"	"	"	"	"
1868-53-7	Dibromofluoromethane	104		70-130 %	"	"	"	"	"	"	"	"	"

Total Metals by EPA 200/6000 Series Methods

Preservation	Field Preserved	N/A	1	EPA 200/6000 methods	LNB	1605420
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Total Metals by EPA 6000/7000 Series Methods*This laboratory report is not valid without an authorized signature on the cover page.*

Sample Identification

MW-53D/20160331

SC19667-19

Client Project #

08-14218H

Matrix

Ground Water

Collection Date/Time

31-Mar-16 10:40

Received

31-Mar-16

<u>CAS No.</u>	<u>Analyte(s)</u>	<u>Result</u>	<u>Flag</u>	<u>Units</u>	<u>*RDL</u>	<u>MDL</u>	<u>Dilution</u>	<u>Method Ref.</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Analyst</u>	<u>Batch</u>	<u>Cert.</u>
Total Metals by EPA 6000/7000 Series Methods													
7440-38-2	Arsenic	< 0.0040		mg/l	0.0040	0.0015	1	SW846 6010C	05-Apr-16	06-Apr-16	EDT	1605535	X
7440-43-9	Cadmium	< 0.0025		mg/l	0.0025	0.0008	1	"	"	"	"	"	X
7440-47-3	Chromium	< 0.0050		mg/l	0.0050	0.0009	1	"	"	"	"	"	X
7440-50-8	Copper	< 0.0050		mg/l	0.0050	0.0025	1	"	"	07-Apr-16	"	"	X
7440-02-0	Nickel	0.0086		mg/l	0.0050	0.0021	1	"	"	06-Apr-16	"	"	X
7440-66-6	Zinc	0.0096		mg/l	0.0050	0.0024	1	"	"	"	"	"	X

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Sample Identification

MW-30/20160331

SC19667-20

Client Project #

08-14218H

Matrix

Ground Water

Collection Date/Time

31-Mar-16 12:15

Received

31-Mar-16

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260													
Prepared by method SW846 5030 Water MS													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 5.0	D	µg/l	5.0	4.5	5	SW846 8260C	05-Apr-16	05-Apr-16	GMA	1605556	X
67-64-1	Acetone	< 50.0	D	µg/l	50.0	17.2	5	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 2.5	D	µg/l	2.5	2.0	5	"	"	"	"	"	X
71-43-2	Benzene	< 5.0	D	µg/l	5.0	0.9	5	"	"	"	"	"	X
108-86-1	Bromobenzene	< 5.0	D	µg/l	5.0	1.0	5	"	"	"	"	"	X
74-97-5	Bromoform	< 5.0	D	µg/l	5.0	2.6	5	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 2.5	D	µg/l	2.5	1.1	5	"	"	"	"	"	X
75-25-2	Bromoform	< 5.0	D	µg/l	5.0	1.8	5	"	"	"	"	"	X
74-83-9	Bromomethane	< 10.0	D	µg/l	10.0	2.9	5	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 50.0	D	µg/l	50.0	6.0	5	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 5.0	D	µg/l	5.0	1.4	5	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 5.0	D	µg/l	5.0	1.7	5	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 5.0	D	µg/l	5.0	1.5	5	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 10.0	D	µg/l	10.0	1.6	5	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 5.0	D	µg/l	5.0	3.0	5	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 5.0	D	µg/l	5.0	0.9	5	"	"	"	"	"	X
75-00-3	Chloroethane	< 10.0	D	µg/l	10.0	2.7	5	"	"	"	"	"	X
67-66-3	Chloroform	< 5.0	D	µg/l	5.0	2.0	5	"	"	"	"	"	X
74-87-3	Chloromethane	< 10.0	D	µg/l	10.0	2.0	5	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 5.0	D	µg/l	5.0	1.5	5	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 5.0	D	µg/l	5.0	1.3	5	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 10.0	D	µg/l	10.0	4.3	5	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 2.5	D	µg/l	2.5	1.1	5	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 2.5	D	µg/l	2.5	1.3	5	"	"	"	"	"	X
74-95-3	Dibromomethane	< 5.0	D	µg/l	5.0	0.9	5	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 5.0	D	µg/l	5.0	1.2	5	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 5.0	D	µg/l	5.0	1.0	5	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 5.0	D	µg/l	5.0	1.2	5	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 10.0	D	µg/l	10.0	4.2	5	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 5.0	D	µg/l	5.0	1.6	5	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 5.0	D	µg/l	5.0	1.4	5	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 5.0	D	µg/l	5.0	1.8	5	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	221	D	µg/l	5.0	1.2	5	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 5.0	D	µg/l	5.0	1.6	5	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 5.0	D	µg/l	5.0	1.5	5	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 5.0	D	µg/l	5.0	1.1	5	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 5.0	D	µg/l	5.0	3.3	5	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 5.0	D	µg/l	5.0	2.2	5	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 2.5	D	µg/l	2.5	1.4	5	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 2.5	D	µg/l	2.5	2.5	5	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 5.0	D	µg/l	5.0	1.2	5	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 2.5	D	µg/l	2.5	2.0	5	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 50.0	D	µg/l	50.0	6.1	5	"	"	"	"	"	X

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Sample Identification

MW-30/20160331

SC19667-20

Client Project #

08-14218H

Matrix

Ground Water

Collection Date/Time

31-Mar-16 12:15

Received

31-Mar-16

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
<u>Volatile Organic Compounds by SW846 8260</u>													
<u>Prepared by method SW846 5030 Water MS</u>													
98-82-8	Isopropylbenzene	< 5.0	D	µg/l	5.0	1.4	5	SW846 8260C	05-Apr-16	05-Apr-16	GMA	1605556	X
99-87-6	4-Isopropyltoluene	< 5.0	D	µg/l	5.0	2.1	5	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 5.0	D	µg/l	5.0	1.4	5	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 50.0	D	µg/l	50.0	4.4	5	"	"	"	"	"	X
75-09-2	Methylene chloride	< 10.0	D	µg/l	10.0	3.9	5	"	"	"	"	"	X
91-20-3	Naphthalene	< 5.0	D	µg/l	5.0	1.7	5	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 5.0	D	µg/l	5.0	1.5	5	"	"	"	"	"	X
100-42-5	Styrene	< 5.0	D	µg/l	5.0	2.0	5	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 5.0	D	µg/l	5.0	2.9	5	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 2.5	D	µg/l	2.5	1.6	5	"	"	"	"	"	X
127-18-4	Tetrachloroethene	< 5.0	D	µg/l	5.0	2.8	5	"	"	"	"	"	X
108-88-3	Toluene	< 5.0	D	µg/l	5.0	1.4	5	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 5.0	D	µg/l	5.0	2.5	5	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 5.0	D	µg/l	5.0	2.2	5	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 5.0	D	µg/l	5.0	1.4	5	"	"	"	"	"	X
71-55-6	1,1,1-Trichloroethane	< 5.0	D	µg/l	5.0	2.4	5	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 5.0	D	µg/l	5.0	1.0	5	"	"	"	"	"	X
79-01-6	Trichloroethene	38.2	D	µg/l	5.0	1.9	5	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 5.0	D	µg/l	5.0	3.1	5	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 5.0	D	µg/l	5.0	1.3	5	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 5.0	D	µg/l	5.0	1.3	5	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 5.0	D	µg/l	5.0	1.2	5	"	"	"	"	"	X
75-01-4	Vinyl chloride	12.2	D	µg/l	5.0	2.6	5	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 10.0	D	µg/l	10.0	1.4	5	"	"	"	"	"	X
95-47-6	o-Xylene	< 5.0	D	µg/l	5.0	2.4	5	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 10.0	D	µg/l	10.0	4.5	5	"	"	"	"	"	X
60-29-7	Ethyl ether	< 5.0	D	µg/l	5.0	2.2	5	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 5.0	D	µg/l	5.0	2.5	5	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 5.0	D	µg/l	5.0	1.2	5	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 5.0	D	µg/l	5.0	1.2	5	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 50.0	D	µg/l	50.0	29.9	5	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 100	D	µg/l	100	63.4	5	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 25.0	D	µg/l	25.0	15.6	5	"	"	"	"	"	X
64-17-5	Ethanol	< 2000	D	µg/l	2000	118	5	"	"	"	"	"	X
<i>Surrogate recoveries:</i>													
460-00-4	4-Bromofluorobenzene	93			70-130 %			"	"	"	"	"	
2037-26-5	Toluene-d8	101			70-130 %			"	"	"	"	"	
17060-07-0	1,2-Dichloroethane-d4	107			70-130 %			"	"	"	"	"	
1868-53-7	Dibromofluoromethane	107			70-130 %			"	"	"	"	"	
Total Metals by EPA 200/6000 Series Methods													
Preservation		Field Preserved		N/A			1	EPA 200/6000 methods			LNB	1605420	
Total Metals by EPA 6000/7000 Series Methods													

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Sample Identification

MW-30/20160331

SC19667-20

Client Project #

08-14218H

Matrix

Ground Water

Collection Date/Time

31-Mar-16 12:15

Received

31-Mar-16

<u>CAS No.</u>	<u>Analyte(s)</u>	<u>Result</u>	<u>Flag</u>	<u>Units</u>	* <u>RDL</u>	<u>MDL</u>	<u>Dilution</u>	<u>Method Ref.</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Analyst</u>	<u>Batch</u>	<u>Cert.</u>
Total Metals by EPA 6000/7000 Series Methods													
7440-38-2	Arsenic	0.0041		mg/l	0.0040	0.0015	1	SW846 6010C	05-Apr-16	06-Apr-16	EDT	1605535	X
7440-43-9	Cadmium	< 0.0025		mg/l	0.0025	0.0008	1	"	"	"	"	"	X
7440-47-3	Chromium	0.0066		mg/l	0.0050	0.0009	1	"	"	"	"	"	X
7440-50-8	Copper	0.0150		mg/l	0.0050	0.0025	1	"	"	07-Apr-16	"	"	X
7440-02-0	Nickel	0.0354		mg/l	0.0050	0.0021	1	"	"	06-Apr-16	"	"	X
7440-66-6	Zinc	0.0423		mg/l	0.0050	0.0024	1	"	"	"	"	"	X

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Sample Identification

MW-31S/20160331

SC19667-21

Client Project #

08-14218H

Matrix

Ground Water

Collection Date/Time

31-Mar-16 12:15

Received

31-Mar-16

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260													
Prepared by method SW846 5030 Water MS													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 200	D	µg/l	200	178	200	SW846 8260C	04-Apr-16	05-Apr-16	GMA	1605474	X
67-64-1	Acetone	2,220	D	µg/l	2000	688	200	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 100	D	µg/l	100	78.4	200	"	"	"	"	"	X
71-43-2	Benzene	220	D	µg/l	200	36.8	200	"	"	"	"	"	X
108-86-1	Bromobenzene	< 200	D	µg/l	200	41.8	200	"	"	"	"	"	X
74-97-5	Bromoform	< 200	D	µg/l	200	106	200	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 100	D	µg/l	100	44.6	200	"	"	"	"	"	X
75-25-2	Bromoform	< 200	D	µg/l	200	72.8	200	"	"	"	"	"	X
74-83-9	Bromomethane	< 400	D	µg/l	400	118	200	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	11,800	D	µg/l	2000	239	200	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 200	D	µg/l	200	56.4	200	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 200	D	µg/l	200	67.2	200	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 200	D	µg/l	200	60.0	200	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 400	D	µg/l	400	63.8	200	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 200	D	µg/l	200	120	200	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 200	D	µg/l	200	37.0	200	"	"	"	"	"	X
75-00-3	Chloroethane	< 400	D	µg/l	400	106	200	"	"	"	"	"	X
67-66-3	Chloroform	< 200	D	µg/l	200	81.4	200	"	"	"	"	"	X
74-87-3	Chloromethane	< 400	D	µg/l	400	80.6	200	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 200	D	µg/l	200	60.4	200	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 200	D	µg/l	200	51.6	200	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 400	D	µg/l	400	173	200	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 100	D	µg/l	100	44.6	200	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 100	D	µg/l	100	53.4	200	"	"	"	"	"	X
74-95-3	Dibromomethane	< 200	D	µg/l	200	37.8	200	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 200	D	µg/l	200	49.4	200	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 200	D	µg/l	200	40.6	200	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 200	D	µg/l	200	49.2	200	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 400	D	µg/l	400	166	200	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 200	D	µg/l	200	64.0	200	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 200	D	µg/l	200	57.4	200	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 200	D	µg/l	200	70.4	200	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	5,560	D	µg/l	200	46.6	200	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 200	D	µg/l	200	63.4	200	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 200	D	µg/l	200	61.8	200	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 200	D	µg/l	200	45.0	200	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 200	D	µg/l	200	134	200	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 200	D	µg/l	200	89.0	200	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 100	D	µg/l	100	54.4	200	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 100	D	µg/l	100	98.2	200	"	"	"	"	"	X
100-41-4	Ethylbenzene	4,990	D	µg/l	200	49.0	200	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 100	D	µg/l	100	82.0	200	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 2000	D	µg/l	2000	244	200	"	"	"	"	"	X

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Sample Identification

MW-31S/20160331

SC19667-21

Client Project #

08-14218H

Matrix

Ground Water

Collection Date/Time

31-Mar-16 12:15

Received

31-Mar-16

<u>CAS No.</u>	<u>Analyte(s)</u>	<u>Result</u>	<u>Flag</u>	<u>Units</u>	* <u>RDL</u>	<u>MDL</u>	<u>Dilution</u>	<u>Method Ref.</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Analyst</u>	<u>Batch</u>	<u>Cert.</u>		
Volatile Organic Compounds															
<u>Volatile Organic Compounds by SW846 8260</u>															
GS1															
<u>Prepared by method SW846 5030 Water MS</u>															
98-82-8	Isopropylbenzene	< 200	D	µg/l	200	54.6	200	SW846 8260C	04-Apr-16	05-Apr-16	GMA	1605474	X		
99-87-6	4-Isopropyltoluene	< 200	D	µg/l	200	82.2	200	"	"	"	"	"	X		
1634-04-4	Methyl tert-butyl ether	< 200	D	µg/l	200	55.6	200	"	"	"	"	"	X		
108-10-1	4-Methyl-2-pentanone (MIBK)	29,800	D, E	µg/l	2000	174	200	"	"	"	"	"	X		
75-09-2	Methylene chloride	< 400	D	µg/l	400	157	200	"	"	"	"	"	X		
91-20-3	Naphthalene	< 200	D	µg/l	200	69.2	200	"	"	"	"	"	X		
103-65-1	n-Propylbenzene	< 200	D	µg/l	200	60.2	200	"	"	"	"	"	X		
100-42-5	Styrene	< 200	D	µg/l	200	80.4	200	"	"	"	"	"	X		
630-20-6	1,1,1,2-Tetrachloroethane	< 200	D	µg/l	200	118	200	"	"	"	"	"	X		
79-34-5	1,1,2,2-Tetrachloroethane	< 100	D	µg/l	100	62.0	200	"	"	"	"	"	X		
127-18-4	Tetrachloroethene	< 200	D	µg/l	200	114	200	"	"	"	"	"	X		
108-88-3	Toluene	15,700	D	µg/l	200	56.6	200	"	"	"	"	"	X		
87-61-6	1,2,3-Trichlorobenzene	< 200	D	µg/l	200	98.2	200	"	"	"	"	"	X		
120-82-1	1,2,4-Trichlorobenzene	< 200	D	µg/l	200	90.0	200	"	"	"	"	"	X		
108-70-3	1,3,5-Trichlorobenzene	< 200	D	µg/l	200	55.6	200	"	"	"	"	"			
71-55-6	1,1,1-Trichloroethane	< 200	D	µg/l	200	96.6	200	"	"	"	"	"	X		
79-00-5	1,1,2-Trichloroethane	< 200	D	µg/l	200	38.6	200	"	"	"	"	"	X		
79-01-6	Trichloroethene	< 200	D	µg/l	200	76.0	200	"	"	"	"	"	X		
75-69-4	Trichlorofluoromethane (Freon 11)	< 200	D	µg/l	200	122	200	"	"	"	"	"	X		
96-18-4	1,2,3-Trichloropropane	< 200	D	µg/l	200	51.0	200	"	"	"	"	"	X		
95-63-6	1,2,4-Trimethylbenzene	398	D	µg/l	200	53.4	200	"	"	"	"	"	X		
108-67-8	1,3,5-Trimethylbenzene	214	D	µg/l	200	49.2	200	"	"	"	"	"	X		
75-01-4	Vinyl chloride	344	D	µg/l	200	103	200	"	"	"	"	"	X		
179601-23-1	m,p-Xylene	9,130	D	µg/l	400	54.0	200	"	"	"	"	"	X		
95-47-6	o-Xylene	3,480	D	µg/l	200	94.0	200	"	"	"	"	"	X		
109-99-9	Tetrahydrofuran	< 400	D	µg/l	400	178	200	"	"	"	"	"			
60-29-7	Ethyl ether	< 200	D	µg/l	200	86.0	200	"	"	"	"	"	X		
994-05-8	Tert-amyl methyl ether	< 200	D	µg/l	200	98.8	200	"	"	"	"	"	X		
637-92-3	Ethyl tert-butyl ether	< 200	D	µg/l	200	48.2	200	"	"	"	"	"	X		
108-20-3	Di-isopropyl ether	< 200	D	µg/l	200	47.0	200	"	"	"	"	"	X		
75-65-0	Tert-Butanol / butyl alcohol	< 2000	D	µg/l	2000	1200	200	"	"	"	"	"	X		
123-91-1	1,4-Dioxane	< 4000	D	µg/l	4000	2540	200	"	"	"	"	"	X		
110-57-6	trans-1,4-Dichloro-2-buten e	< 1000	D	µg/l	1000	622	200	"	"	"	"	"	X		
64-17-5	Ethanol	< 80000	D	µg/l	80000	4730	200	"	"	"	"	"	X		
<i>Surrogate recoveries:</i>															
460-00-4	4-Bromofluorobenzene	104			70-130 %			"	"	"	"	"			
2037-26-5	Toluene-d8	109			70-130 %			"	"	"	"	"			
17060-07-0	1,2-Dichloroethane-d4	106			70-130 %			"	"	"	"	"			
1868-53-7	Dibromofluoromethane	106			70-130 %			"	"	"	"	"			
<u>Re-analysis of Volatile Organic Compounds by SW846 8260</u>															
GS1															
<u>Prepared by method SW846 5030 Water MS</u>															

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Sample Identification

MW-31S/20160331

SC19667-21

Client Project #

08-14218H

Matrix

Ground Water

Collection Date/Time

31-Mar-16 12:15

Received

31-Mar-16

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
<u>Re-analysis of Volatile Organic Compounds by SW846 8260</u>													
<u>Prepared by method SW846 5030 Water MS</u>													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 500	D	µg/l	500	446	500	SW846 8260C	05-Apr-16	05-Apr-16	GMA	1605556	X
67-64-1	Acetone	< 5000	D	µg/l	5000	1720	500	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 250	D	µg/l	250	196	500	"	"	"	"	"	X
71-43-2	Benzene	< 500	D	µg/l	500	92.0	500	"	"	"	"	"	X
108-86-1	Bromobenzene	< 500	D	µg/l	500	104	500	"	"	"	"	"	X
74-97-5	Bromochloromethane	< 500	D	µg/l	500	264	500	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 250	D	µg/l	250	112	500	"	"	"	"	"	X
75-25-2	Bromoform	< 500	D	µg/l	500	182	500	"	"	"	"	"	X
74-83-9	Bromomethane	< 1000	D	µg/l	1000	294	500	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	10,000	D	µg/l	5000	598	500	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 500	D	µg/l	500	141	500	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 500	D	µg/l	500	168	500	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 500	D	µg/l	500	150	500	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 1000	D	µg/l	1000	160	500	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 500	D	µg/l	500	300	500	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 500	D	µg/l	500	92.5	500	"	"	"	"	"	X
75-00-3	Chloroethane	< 1000	D	µg/l	1000	266	500	"	"	"	"	"	X
67-66-3	Chloroform	< 500	D	µg/l	500	204	500	"	"	"	"	"	X
74-87-3	Chloromethane	< 1000	D	µg/l	1000	202	500	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 500	D	µg/l	500	151	500	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 500	D	µg/l	500	129	500	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 1000	D	µg/l	1000	432	500	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 250	D	µg/l	250	112	500	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 250	D	µg/l	250	134	500	"	"	"	"	"	X
74-95-3	Dibromomethane	< 500	D	µg/l	500	94.5	500	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 500	D	µg/l	500	124	500	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 500	D	µg/l	500	102	500	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 500	D	µg/l	500	123	500	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 1000	D	µg/l	1000	416	500	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 500	D	µg/l	500	160	500	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 500	D	µg/l	500	144	500	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 500	D	µg/l	500	176	500	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	4,740	D	µg/l	500	116	500	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 500	D	µg/l	500	158	500	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 500	D	µg/l	500	154	500	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 500	D	µg/l	500	112	500	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 500	D	µg/l	500	334	500	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 500	D	µg/l	500	222	500	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 250	D	µg/l	250	136	500	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 250	D	µg/l	250	246	500	"	"	"	"	"	X
100-41-4	Ethylbenzene	4,240	D	µg/l	500	122	500	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 250	D	µg/l	250	205	500	"	"	"	"	"	X

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Sample Identification

MW-31S/20160331

SC19667-21

Client Project #

08-14218H

Matrix

Ground Water

Collection Date/Time

31-Mar-16 12:15

Received

31-Mar-16

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
<u>Re-analysis of Volatile Organic Compounds by SW846 8260</u>													
<u>Prepared by method SW846 5030 Water MS</u>													
591-78-6	2-Hexanone (MBK)	< 5000	D	µg/l	5000	610	500	SW846 8260C	05-Apr-16	05-Apr-16	GMA	1605556	X
98-82-8	Isopropylbenzene	< 500	D	µg/l	500	136	500	"	"	"	"	"	X
99-87-6	4-Isopropyltoluene	< 500	D	µg/l	500	206	500	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 500	D	µg/l	500	139	500	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	22,400	D	µg/l	5000	436	500	"	"	"	"	"	X
75-09-2	Methylene chloride	< 1000	D	µg/l	1000	394	500	"	"	"	"	"	X
91-20-3	Naphthalene	< 500	D	µg/l	500	173	500	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 500	D	µg/l	500	150	500	"	"	"	"	"	X
100-42-5	Styrene	< 500	D	µg/l	500	201	500	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 500	D	µg/l	500	294	500	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 250	D	µg/l	250	155	500	"	"	"	"	"	X
127-18-4	Tetrachloroethene	< 500	D	µg/l	500	285	500	"	"	"	"	"	X
108-88-3	Toluene	15,600	D	µg/l	500	142	500	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 500	D	µg/l	500	246	500	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 500	D	µg/l	500	225	500	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 500	D	µg/l	500	139	500	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 500	D	µg/l	500	242	500	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 500	D	µg/l	500	96.5	500	"	"	"	"	"	X
79-01-6	Trichloroethene	< 500	D	µg/l	500	190	500	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 500	D	µg/l	500	306	500	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 500	D	µg/l	500	128	500	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	515	D	µg/l	500	134	500	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 500	D	µg/l	500	123	500	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 500	D	µg/l	500	256	500	"	"	"	"	"	X
179601-23-1	m,p-Xylene	7,870	D	µg/l	1000	135	500	"	"	"	"	"	X
95-47-6	o-Xylene	2,880	D	µg/l	500	235	500	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 1000	D	µg/l	1000	446	500	"	"	"	"	"	
60-29-7	Ethyl ether	< 500	D	µg/l	500	215	500	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 500	D	µg/l	500	247	500	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 500	D	µg/l	500	120	500	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 500	D	µg/l	500	118	500	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 5000	D	µg/l	5000	2990	500	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 10000	D	µg/l	10000	6340	500	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 2500	D	µg/l	2500	1560	500	"	"	"	"	"	X
64-17-5	Ethanol	< 200000	D	µg/l	200000	11800	500	"	"	"	"	"	X

Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	105	70-130 %	"	"	"	"
2037-26-5	Toluene-d8	113	70-130 %	"	"	"	"
17060-07-0	1,2-Dichloroethane-d4	106	70-130 %	"	"	"	"
1868-53-7	Dibromofluoromethane	107	70-130 %	"	"	"	"

Total Metals by EPA 200/6000 Series Methods

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Sample Identification

MW-31S/20160331

SC19667-21

Client Project #

08-14218H

Matrix

Ground Water

Collection Date/Time

31-Mar-16 12:15

Received

31-Mar-16

<u>CAS No.</u>	<u>Analyte(s)</u>	<u>Result</u>	<u>Flag</u>	<u>Units</u>	<u>*RDL</u>	<u>MDL</u>	<u>Dilution</u>	<u>Method Ref.</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Analyst</u>	<u>Batch</u>	<u>Cert.</u>
Total Metals by EPA 200/6000 Series Methods													
	Preservation		Field Preserved	N/A			1	EPA 200/6000 methods			LNB	1605420	
Total Metals by EPA 6000/7000 Series Methods													
7440-38-2	Arsenic	< 0.0040		mg/l	0.0040	0.0015	1	SW846 6010C	05-Apr-16	06-Apr-16	EDT	1605535	X
7440-43-9	Cadmium	< 0.0025		mg/l	0.0025	0.0008	1	"	"	"	"	"	X
7440-47-3	Chromium	0.0420		mg/l	0.0050	0.0009	1	"	"	"	"	"	X
7440-50-8	Copper	0.0072		mg/l	0.0050	0.0025	1	"	"	07-Apr-16	"	"	X
7440-02-0	Nickel	0.111		mg/l	0.0050	0.0021	1	"	"	06-Apr-16	"	"	X
7440-66-6	Zinc	2.07		mg/l	0.0050	0.0024	1	"	"	"	"	"	X

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Sample Identification

MW-31S/20160331F

SC19667-22

Client Project #

08-14218H

Matrix

Ground Water

Collection Date/Time

31-Mar-16 12:15

Received

31-Mar-16

<u>CAS No.</u>	<u>Analyte(s)</u>	<u>Result</u>	<u>Flag</u>	<u>Units</u>	* <u>RDL</u>	<u>MDL</u>	<u>Dilution</u>	<u>Method Ref.</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Analyst</u>	<u>Batch</u>	<u>Cert.</u>
Soluble Metals by EPA 200/6000 Series Methods													
	Filtration		Field Filtered	N/A			1	EPA 200.7/3005A/601 0			BK	1605573	
Soluble Metals by EPA 6000/7000 Series Methods													
7440-38-2	Arsenic	< 0.0040		mg/l	0.0040	0.0027	1	SW846 6010C	05-Apr-16	06-Apr-16	bjw	1605533	X
7440-43-9	Cadmium	< 0.0025		mg/l	0.0025	0.0002	1	"	"	"	"	"	X
7440-47-3	Chromium	0.0342		mg/l	0.0050	0.0010	1	"	"	"	"	"	X
7440-50-8	Copper	< 0.0050		mg/l	0.0050	0.0035	1	"	"	"	"	"	X
7440-02-0	Nickel	0.117		mg/l	0.0050	0.0014	1	"	"	"	"	"	X
7440-66-6	Zinc	1.32		mg/l	0.0050	0.0006	1	"	"	"	"	"	X

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Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1605473 - SW846 5030 Water MS										
<u>Blank (1605473-BLK1)</u>										
<u>Prepared & Analyzed: 04-Apr-16</u>										
1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0						
Acetone	< 10.0		µg/l	10.0						
Acrylonitrile	< 0.5		µg/l	0.5						
Benzene	< 1.0		µg/l	1.0						
Bromobenzene	< 1.0		µg/l	1.0						
Bromochloromethane	< 1.0		µg/l	1.0						
Bromodichloromethane	< 0.5		µg/l	0.5						
Bromoform	< 1.0		µg/l	1.0						
Bromomethane	< 2.0		µg/l	2.0						
2-Butanone (MEK)	< 10.0		µg/l	10.0						
n-Butylbenzene	< 1.0		µg/l	1.0						
sec-Butylbenzene	< 1.0		µg/l	1.0						
tert-Butylbenzene	< 1.0		µg/l	1.0						
Carbon disulfide	< 2.0		µg/l	2.0						
Carbon tetrachloride	< 1.0		µg/l	1.0						
Chlorobenzene	< 1.0		µg/l	1.0						
Chloroethane	< 2.0		µg/l	2.0						
Chloroform	< 1.0		µg/l	1.0						
Chloromethane	< 2.0		µg/l	2.0						
2-Chlorotoluene	< 1.0		µg/l	1.0						
4-Chlorotoluene	< 1.0		µg/l	1.0						
1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0						
Dibromochloromethane	< 0.5		µg/l	0.5						
1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5						
Dibromomethane	< 1.0		µg/l	1.0						
1,2-Dichlorobenzene	< 1.0		µg/l	1.0						
1,3-Dichlorobenzene	< 1.0		µg/l	1.0						
1,4-Dichlorobenzene	< 1.0		µg/l	1.0						
Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0						
1,1-Dichloroethane	< 1.0		µg/l	1.0						
1,2-Dichloroethane	< 1.0		µg/l	1.0						
1,1-Dichloroethene	< 1.0		µg/l	1.0						
cis-1,2-Dichloroethene	< 1.0		µg/l	1.0						
trans-1,2-Dichloroethene	< 1.0		µg/l	1.0						
1,2-Dichloropropane	< 1.0		µg/l	1.0						
1,3-Dichloropropane	< 1.0		µg/l	1.0						
2,2-Dichloropropane	< 1.0		µg/l	1.0						
1,1-Dichloropropene	< 1.0		µg/l	1.0						
cis-1,3-Dichloropropene	< 0.5		µg/l	0.5						
trans-1,3-Dichloropropene	< 0.5		µg/l	0.5						
Ethylbenzene	< 1.0		µg/l	1.0						
Hexachlorobutadiene	< 0.5		µg/l	0.5						
2-Hexanone (MBK)	< 10.0		µg/l	10.0						
Isopropylbenzene	< 1.0		µg/l	1.0						
4-Isopropyltoluene	< 1.0		µg/l	1.0						
Methyl tert-butyl ether	< 1.0		µg/l	1.0						
4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0						
Methylene chloride	< 2.0		µg/l	2.0						
Naphthalene	< 1.0		µg/l	1.0						
n-Propylbenzene	< 1.0		µg/l	1.0						
Styrene	< 1.0		µg/l	1.0						
1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0						

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Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1605473 - SW846 5030 Water MS										
<u>Blank (1605473-BLK1)</u>										
1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5						
Tetrachloroethene	< 1.0		µg/l	1.0						
Toluene	< 1.0		µg/l	1.0						
1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0						
1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0						
1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0						
1,1,1-Trichloroethane	< 1.0		µg/l	1.0						
1,1,2-Trichloroethane	< 1.0		µg/l	1.0						
Trichloroethene	< 1.0		µg/l	1.0						
Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0						
1,2,3-Trichloropropane	< 1.0		µg/l	1.0						
1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0						
1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0						
Vinyl chloride	< 1.0		µg/l	1.0						
m,p-Xylene	< 2.0		µg/l	2.0						
o-Xylene	< 1.0		µg/l	1.0						
Tetrahydrofuran	< 2.0		µg/l	2.0						
Ethyl ether	< 1.0		µg/l	1.0						
Tert-amyl methyl ether	< 1.0		µg/l	1.0						
Ethyl tert-butyl ether	< 1.0		µg/l	1.0						
Di-isopropyl ether	< 1.0		µg/l	1.0						
Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0						
1,4-Dioxane	< 20.0		µg/l	20.0						
trans-1,4-Dichloro-2-butene	< 5.0		µg/l	5.0						
Ethanol	< 400		µg/l	400						
Surrogate: 4-Bromofluorobenzene	46.6		µg/l	50.0		93	70-130			
Surrogate: Toluene-d8	50.1		µg/l	50.0		100	70-130			
Surrogate: 1,2-Dichloroethane-d4	52.3		µg/l	50.0		105	70-130			
Surrogate: Dibromofluoromethane	51.7		µg/l	50.0		103	70-130			
<u>LCS (1605473-BS1)</u>										
<u>Prepared & Analyzed: 04-Apr-16</u>										
1,1,2-Trichlorotrifluoroethane (Freon 113)	18.8		µg/l	20.0		94	70-130			
Acetone	18.9		µg/l	20.0		95	70-130			
Acrylonitrile	19.7		µg/l	20.0		99	70-130			
Benzene	21.4		µg/l	20.0		107	70-130			
Bromobenzene	21.5		µg/l	20.0		107	70-130			
Bromoform	20.4		µg/l	20.0		102	70-130			
Bromochloromethane	19.8		µg/l	20.0		99	70-130			
Bromodichloromethane	21.4		µg/l	20.0		107	70-130			
Bromoform	21.4		µg/l	20.0		107	70-130			
Bromomethane	18.9		µg/l	20.0		94	70-130			
2-Butanone (MEK)	21.6		µg/l	20.0		108	70-130			
n-Butylbenzene	19.5		µg/l	20.0		98	70-130			
sec-Butylbenzene	19.9		µg/l	20.0		100	70-130			
tert-Butylbenzene	19.3		µg/l	20.0		97	70-130			
Carbon disulfide	19.5		µg/l	20.0		98	70-130			
Carbon tetrachloride	19.8		µg/l	20.0		99	70-130			
Chlorobenzene	19.7		µg/l	20.0		98	70-130			
Chloroethane	19.2		µg/l	20.0		96	70-130			
Chloroform	19.4		µg/l	20.0		97	70-130			
Chloromethane	18.0		µg/l	20.0		90	70-130			
2-Chlorotoluene	22.7		µg/l	20.0		113	70-130			
4-Chlorotoluene	21.1		µg/l	20.0		106	70-130			

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Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1605473 - SW846 5030 Water MS										
<u>LCS (1605473-BS1)</u>										
<u>Prepared & Analyzed: 04-Apr-16</u>										
1,2-Dibromo-3-chloropropane	22.1		µg/l		20.0	110	70-130			
Dibromochloromethane	20.2		µg/l		20.0	101	70-130			
1,2-Dibromoethane (EDB)	20.9		µg/l		20.0	105	70-130			
Dibromomethane	19.7		µg/l		20.0	98	70-130			
1,2-Dichlorobenzene	20.8		µg/l		20.0	104	70-130			
1,3-Dichlorobenzene	22.9		µg/l		20.0	114	70-130			
1,4-Dichlorobenzene	21.3		µg/l		20.0	106	70-130			
Dichlorodifluoromethane (Freon12)	17.1		µg/l		20.0	86	70-130			
1,1-Dichloroethane	19.4		µg/l		20.0	97	70-130			
1,2-Dichloroethane	19.1		µg/l		20.0	95	70-130			
1,1-Dichloroethene	18.6		µg/l		20.0	93	70-130			
cis-1,2-Dichloroethene	21.6		µg/l		20.0	108	70-130			
trans-1,2-Dichloroethene	19.2		µg/l		20.0	96	70-130			
1,2-Dichloropropane	20.0		µg/l		20.0	100	70-130			
1,3-Dichloropropane	19.3		µg/l		20.0	96	70-130			
2,2-Dichloropropane	22.6		µg/l		20.0	113	70-130			
1,1-Dichloropropene	21.7		µg/l		20.0	108	70-130			
cis-1,3-Dichloropropene	21.1		µg/l		20.0	106	70-130			
trans-1,3-Dichloropropene	21.1		µg/l		20.0	106	70-130			
Ethylbenzene	23.0		µg/l		20.0	115	70-130			
Hexachlorobutadiene	18.8		µg/l		20.0	94	70-130			
2-Hexanone (MBK)	21.1		µg/l		20.0	106	70-130			
Isopropylbenzene	21.7		µg/l		20.0	109	70-130			
4-Isopropyltoluene	21.2		µg/l		20.0	106	70-130			
Methyl tert-butyl ether	19.8		µg/l		20.0	99	70-130			
4-Methyl-2-pentanone (MIBK)	20.7		µg/l		20.0	103	70-130			
Methylene chloride	16.6		µg/l		20.0	83	70-130			
Naphthalene	22.5		µg/l		20.0	113	70-130			
n-Propylbenzene	19.7		µg/l		20.0	98	70-130			
Styrene	20.3		µg/l		20.0	101	70-130			
1,1,1,2-Tetrachloroethane	20.4		µg/l		20.0	102	70-130			
1,1,2,2-Tetrachloroethane	20.9		µg/l		20.0	104	70-130			
Tetrachloroethene	20.8		µg/l		20.0	104	70-130			
Toluene	20.3		µg/l		20.0	102	70-130			
1,2,3-Trichlorobenzene	21.5		µg/l		20.0	107	70-130			
1,2,4-Trichlorobenzene	20.0		µg/l		20.0	100	70-130			
1,3,5-Trichlorobenzene	21.0		µg/l		20.0	105	70-130			
1,1,1-Trichloroethane	20.0		µg/l		20.0	100	70-130			
1,1,2-Trichloroethane	20.2		µg/l		20.0	101	70-130			
Trichloroethene	19.8		µg/l		20.0	99	70-130			
Trichlorofluoromethane (Freon 11)	19.0		µg/l		20.0	95	70-130			
1,2,3-Trichloropropane	20.5		µg/l		20.0	102	70-130			
1,2,4-Trimethylbenzene	20.8		µg/l		20.0	104	70-130			
1,3,5-Trimethylbenzene	20.0		µg/l		20.0	100	70-130			
Vinyl chloride	16.0		µg/l		20.0	80	70-130			
m,p-Xylene	20.6		µg/l		20.0	103	70-130			
o-Xylene	21.7		µg/l		20.0	109	70-130			
Tetrahydrofuran	23.3		µg/l		20.0	117	70-130			
Ethyl ether	18.8		µg/l		20.0	94	70-130			
Tert-amyl methyl ether	20.5		µg/l		20.0	102	70-130			
Ethyl tert-butyl ether	22.2		µg/l		20.0	111	70-130			
Di-isopropyl ether	22.0		µg/l		20.0	110	70-130			

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Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1605473 - SW846 5030 Water MS										
<u>LCS (1605473-BS1)</u>										
						<u>Prepared & Analyzed: 04-Apr-16</u>				
Tert-Butanol / butyl alcohol	226		µg/l		200	113	70-130			
1,4-Dioxane	233		µg/l		200	117	70-130			
trans-1,4-Dichloro-2-butene	23.0		µg/l		20.0	115	70-130			
Ethanol	397		µg/l		400	99	70-130			
<i>Surrogate: 4-Bromofluorobenzene</i>	53.5		µg/l		50.0	107	70-130			
<i>Surrogate: Toluene-d8</i>	50.7		µg/l		50.0	101	70-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	46.9		µg/l		50.0	94	70-130			
<i>Surrogate: Dibromofluoromethane</i>	49.1		µg/l		50.0	98	70-130			
<u>LCS Dup (1605473-BSD1)</u>										
						<u>Prepared & Analyzed: 04-Apr-16</u>				
1,1,2-Trichlorotrifluoroethane (Freon 113)	17.3		µg/l		20.0	87	70-130	8	20	
Acetone	17.5		µg/l		20.0	88	70-130	8	20	
Acrylonitrile	18.4		µg/l		20.0	92	70-130	7	20	
Benzene	20.2		µg/l		20.0	101	70-130	6	20	
Bromobenzene	21.0		µg/l		20.0	105	70-130	2	20	
Bromoform	20.2		µg/l		20.0	101	70-130	1	20	
Bromochloromethane	19.2		µg/l		20.0	96	70-130	3	20	
Bromodichloromethane	20.9		µg/l		20.0	104	70-130	2	20	
Bromoform	17.6		µg/l		20.0	88	70-130	7	20	
2-Butanone (MEK)	18.9		µg/l		20.0	94	70-130	14	20	
n-Butylbenzene	18.1		µg/l		20.0	90	70-130	8	20	
sec-Butylbenzene	18.8		µg/l		20.0	94	70-130	6	20	
tert-Butylbenzene	18.5		µg/l		20.0	92	70-130	5	20	
Carbon disulfide	18.0		µg/l		20.0	90	70-130	8	20	
Carbon tetrachloride	18.4		µg/l		20.0	92	70-130	7	20	
Chlorobenzene	18.9		µg/l		20.0	95	70-130	4	20	
Chloroethane	16.6		µg/l		20.0	83	70-130	15	20	
Chloroform	18.6		µg/l		20.0	93	70-130	5	20	
Chloromethane	16.6		µg/l		20.0	83	70-130	8	20	
2-Chlorotoluene	21.8		µg/l		20.0	109	70-130	4	20	
4-Chlorotoluene	20.5		µg/l		20.0	102	70-130	3	20	
1,2-Dibromo-3-chloropropane	21.5		µg/l		20.0	107	70-130	3	20	
Dibromochloromethane	19.6		µg/l		20.0	98	70-130	3	20	
1,2-Dibromoethane (EDB)	20.5		µg/l		20.0	102	70-130	2	20	
Dibromomethane	19.2		µg/l		20.0	96	70-130	2	20	
1,2-Dichlorobenzene	20.2		µg/l		20.0	101	70-130	3	20	
1,3-Dichlorobenzene	22.2		µg/l		20.0	111	70-130	3	20	
1,4-Dichlorobenzene	20.3		µg/l		20.0	102	70-130	5	20	
Dichlorodifluoromethane (Freon12)	15.7		µg/l		20.0	79	70-130	8	20	
1,1-Dichloroethane	18.5		µg/l		20.0	93	70-130	5	20	
1,2-Dichloroethane	18.4		µg/l		20.0	92	70-130	4	20	
1,1-Dichloroethene	17.2		µg/l		20.0	86	70-130	8	20	
cis-1,2-Dichloroethene	20.5		µg/l		20.0	103	70-130	5	20	
trans-1,2-Dichloroethene	18.7		µg/l		20.0	94	70-130	2	20	
1,2-Dichloropropane	19.4		µg/l		20.0	97	70-130	3	20	
1,3-Dichloropropane	18.8		µg/l		20.0	94	70-130	2	20	
2,2-Dichloropropane	20.8		µg/l		20.0	104	70-130	8	20	
1,1-Dichloropropene	19.8		µg/l		20.0	99	70-130	9	20	
cis-1,3-Dichloropropene	20.4		µg/l		20.0	102	70-130	4	20	
trans-1,3-Dichloropropene	20.5		µg/l		20.0	102	70-130	3	20	
Ethylbenzene	21.6		µg/l		20.0	108	70-130	6	20	
Hexachlorobutadiene	18.3		µg/l		20.0	91	70-130	3	20	

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Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1605473 - SW846 5030 Water MS										
<u>LCS Dup (1605473-BSD1)</u>										
						<u>Prepared & Analyzed: 04-Apr-16</u>				
2-Hexanone (MBK)	20.9		µg/l		20.0	104	70-130	1	20	
Isopropylbenzene	20.8		µg/l		20.0	104	70-130	4	20	
4-Isopropyltoluene	19.8		µg/l		20.0	99	70-130	7	20	
Methyl tert-butyl ether	19.1		µg/l		20.0	96	70-130	3	20	
4-Methyl-2-pentanone (MIBK)	20.2		µg/l		20.0	101	70-130	2	20	
Methylene chloride	17.0		µg/l		20.0	85	70-130	3	20	
Naphthalene	22.1		µg/l		20.0	111	70-130	2	20	
n-Propylbenzene	18.8		µg/l		20.0	94	70-130	5	20	
Styrene	19.0		µg/l		20.0	95	70-130	7	20	
1,1,1,2-Tetrachloroethane	19.9		µg/l		20.0	100	70-130	3	20	
1,1,2,2-Tetrachloroethane	20.6		µg/l		20.0	103	70-130	1	20	
Tetrachloroethene	19.6		µg/l		20.0	98	70-130	6	20	
Toluene	19.3		µg/l		20.0	96	70-130	5	20	
1,2,3-Trichlorobenzene	20.9		µg/l		20.0	104	70-130	3	20	
1,2,4-Trichlorobenzene	19.3		µg/l		20.0	97	70-130	3	20	
1,3,5-Trichlorobenzene	20.2		µg/l		20.0	101	70-130	4	20	
1,1,1-Trichloroethane	18.6		µg/l		20.0	93	70-130	7	20	
1,1,2-Trichloroethane	19.8		µg/l		20.0	99	70-130	2	20	
Trichloroethene	18.5		µg/l		20.0	93	70-130	7	20	
Trichlorofluoromethane (Freon 11)	18.0		µg/l		20.0	90	70-130	6	20	
1,2,3-Trichloropropane	20.4		µg/l		20.0	102	70-130	0.1	20	
1,2,4-Trimethylbenzene	20.0		µg/l		20.0	100	70-130	4	20	
1,3,5-Trimethylbenzene	19.4		µg/l		20.0	97	70-130	3	20	
Vinyl chloride	14.9		µg/l		20.0	75	70-130	7	20	
m,p-Xylene	19.3		µg/l		20.0	97	70-130	6	20	
o-Xylene	20.9		µg/l		20.0	105	70-130	4	20	
Tetrahydrofuran	22.5		µg/l		20.0	112	70-130	4	20	
Ethyl ether	18.4		µg/l		20.0	92	70-130	2	20	
Tert-amyl methyl ether	20.3		µg/l		20.0	102	70-130	0.7	20	
Ethyl tert-butyl ether	21.6		µg/l		20.0	108	70-130	3	20	
Di-isopropyl ether	21.0		µg/l		20.0	105	70-130	5	20	
Tert-Butanol / butyl alcohol	222		µg/l		200	111	70-130	2	20	
1,4-Dioxane	222		µg/l		200	111	70-130	5	20	
trans-1,4-Dichloro-2-butene	21.4		µg/l		20.0	107	70-130	7	20	
Ethanol	416		µg/l		400	104	70-130	5	20	
Surrogate: 4-Bromofluorobenzene	54.1		µg/l		50.0	108	70-130			
Surrogate: Toluene-d8	50.4		µg/l		50.0	101	70-130			
Surrogate: 1,2-Dichloroethane-d4	46.5		µg/l		50.0	93	70-130			
Surrogate: Dibromofluoromethane	48.7		µg/l		50.0	97	70-130			
<u>Matrix Spike (1605473-MS1)</u>										
				<u>Source: SC19667-04</u>		<u>Prepared & Analyzed: 04-Apr-16</u>				
1,1,2-Trichlorotrifluoroethane (Freon 113)	19.5	D	µg/l		20.0	BRL	97	70-130		
Acetone	17.8	D	µg/l		20.0	BRL	89	70-130		
Acrylonitrile	19.5	D	µg/l		20.0	BRL	97	70-130		
Benzene	22.4	D	µg/l		20.0	BRL	112	70-130		
Bromobenzene	22.6	D	µg/l		20.0	BRL	113	70-130		
Bromochloromethane	21.4	D	µg/l		20.0	BRL	107	70-130		
Bromodichloromethane	20.9	D	µg/l		20.0	BRL	104	70-130		
Bromoform	22.6	D	µg/l		20.0	BRL	113	70-130		
Bromomethane	19.3	D	µg/l		20.0	BRL	97	70-130		
2-Butanone (MEK)	17.6	D	µg/l		20.0	BRL	88	70-130		
n-Butylbenzene	19.8	D	µg/l		20.0	BRL	99	70-130		

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Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1605473 - SW846 5030 Water MS										
<u>Matrix Spike (1605473-MS1)</u>										
<u>Source: SC19667-04</u>								<u>Prepared & Analyzed: 04-Apr-16</u>		
sec-Butylbenzene	21.4	D	µg/l		20.0	BRL	107	70-130		
tert-Butylbenzene	20.6	D	µg/l		20.0	BRL	103	70-130		
Carbon disulfide	20.1	D	µg/l		20.0	BRL	101	70-130		
Carbon tetrachloride	21.2	D	µg/l		20.0	BRL	106	70-130		
Chlorobenzene	20.9	D	µg/l		20.0	BRL	104	70-130		
Chloroethane	19.4	D	µg/l		20.0	BRL	97	70-130		
Chloroform	20.6	D	µg/l		20.0	BRL	103	70-130		
Chloromethane	18.1	D	µg/l		20.0	BRL	90	70-130		
2-Chlorotoluene	24.7	D	µg/l		20.0	BRL	124	70-130		
4-Chlorotoluene	22.9	D	µg/l		20.0	BRL	114	70-130		
1,2-Dibromo-3-chloropropane	23.3	D	µg/l		20.0	BRL	116	70-130		
Dibromochloromethane	21.0	D	µg/l		20.0	BRL	105	70-130		
1,2-Dibromoethane (EDB)	21.7	D	µg/l		20.0	BRL	109	70-130		
Dibromomethane	20.5	D	µg/l		20.0	BRL	103	70-130		
1,2-Dichlorobenzene	21.8	D	µg/l		20.0	BRL	109	70-130		
1,3-Dichlorobenzene	24.7	D	µg/l		20.0	BRL	123	70-130		
1,4-Dichlorobenzene	22.0	D	µg/l		20.0	BRL	110	70-130		
Dichlorodifluoromethane (Freon12)	17.2	D	µg/l		20.0	BRL	86	70-130		
1,1-Dichloroethane	20.4	D	µg/l		20.0	BRL	102	70-130		
1,2-Dichloroethane	20.0	D	µg/l		20.0	BRL	100	70-130		
1,1-Dichloroethene	19.8	D	µg/l		20.0	BRL	99	70-130		
cis-1,2-Dichloroethene	22.6	D	µg/l		20.0	BRL	113	70-130		
trans-1,2-Dichloroethene	21.2	D	µg/l		20.0	BRL	106	70-130		
1,2-Dichloropropane	20.8	D	µg/l		20.0	BRL	104	70-130		
1,3-Dichloropropane	20.2	D	µg/l		20.0	BRL	101	70-130		
2,2-Dichloropropane	20.0	D	µg/l		20.0	BRL	100	70-130		
1,1-Dichloropropene	22.0	D	µg/l		20.0	BRL	110	70-130		
cis-1,3-Dichloropropene	20.9	D	µg/l		20.0	BRL	105	70-130		
trans-1,3-Dichloropropene	21.2	D	µg/l		20.0	BRL	106	70-130		
Ethylbenzene	24.1	D	µg/l		20.0	BRL	121	70-130		
Hexachlorobutadiene	18.7	D	µg/l		20.0	BRL	93	70-130		
2-Hexanone (MBK)	22.0	D	µg/l		20.0	BRL	110	70-130		
Isopropylbenzene	23.4	D	µg/l		20.0	BRL	117	70-130		
4-Isopropyltoluene	21.7	D	µg/l		20.0	BRL	109	70-130		
Methyl tert-butyl ether	19.1	D	µg/l		20.0	BRL	95	70-130		
4-Methyl-2-pentanone (MIBK)	21.2	D	µg/l		20.0	BRL	106	70-130		
Methylene chloride	18.3	D	µg/l		20.0	BRL	92	70-130		
Naphthalene	21.5	D	µg/l		20.0	BRL	108	70-130		
n-Propylbenzene	21.1	D	µg/l		20.0	BRL	105	70-130		
Styrene	20.8	D	µg/l		20.0	BRL	104	70-130		
1,1,1,2-Tetrachloroethane	21.6	D	µg/l		20.0	BRL	108	70-130		
1,1,2,2-Tetrachloroethane	22.4	D	µg/l		20.0	BRL	112	70-130		
Tetrachloroethene	21.5	D	µg/l		20.0	BRL	107	70-130		
Toluene	21.2	D	µg/l		20.0	BRL	106	70-130		
1,2,3-Trichlorobenzene	20.9	D	µg/l		20.0	BRL	104	70-130		
1,2,4-Trichlorobenzene	19.0	D	µg/l		20.0	BRL	95	70-130		
1,3,5-Trichlorobenzene	20.6	D	µg/l		20.0	BRL	103	70-130		
1,1,1-Trichloroethane	20.9	D	µg/l		20.0	BRL	105	70-130		
1,1,2-Trichloroethane	21.0	D	µg/l		20.0	BRL	105	70-130		
Trichloroethene	21.0	D	µg/l		20.0	0.06	105	70-130		
Trichlorofluoromethane (Freon 11)	20.2	D	µg/l		20.0	BRL	101	70-130		
1,2,3-Trichloropropane	22.0	D	µg/l		20.0	BRL	110	70-130		

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Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1605473 - SW846 5030 Water MS										
<u>Matrix Spike (1605473-MS1)</u>										
					<u>Source: SC19667-04</u>	<u>Prepared & Analyzed: 04-Apr-16</u>				
1,2,4-Trimethylbenzene	22.1	D	µg/l		20.0	BRL	111	70-130		
1,3,5-Trimethylbenzene	21.4	D	µg/l		20.0	BRL	107	70-130		
Vinyl chloride	16.9	D	µg/l		20.0	BRL	85	70-130		
m,p-Xylene	21.4	D	µg/l		20.0	BRL	107	70-130		
o-Xylene	23.5	D	µg/l		20.0	BRL	117	70-130		
Tetrahydrofuran	22.1	D	µg/l		20.0	BRL	110	70-130		
Ethyl ether	19.6	D	µg/l		20.0	BRL	98	70-130		
Tert-amyl methyl ether	22.4	D	µg/l		20.0	BRL	112	70-130		
Ethyl tert-butyl ether	21.9	D	µg/l		20.0	BRL	110	70-130		
Di-isopropyl ether	21.9	D	µg/l		20.0	BRL	109	70-130		
Tert-Butanol / butyl alcohol	218	D	µg/l		200	BRL	109	70-130		
1,4-Dioxane	224	D	µg/l		200	BRL	112	70-130		
trans-1,4-Dichloro-2-butene	22.0	D	µg/l		20.0	BRL	110	70-130		
Ethanol	379	D	µg/l		400	BRL	95	70-130		
<i>Surrogate: 4-Bromofluorobenzene</i>	54.3		µg/l		50.0		109	70-130		
<i>Surrogate: Toluene-d8</i>	49.6		µg/l		50.0		99	70-130		
<i>Surrogate: 1,2-Dichloroethane-d4</i>	47.0		µg/l		50.0		94	70-130		
<i>Surrogate: Dibromofluoromethane</i>	48.8		µg/l		50.0		98	70-130		
<u>Matrix Spike Dup (1605473-MSD1)</u>										
					<u>Source: SC19667-04</u>	<u>Prepared & Analyzed: 04-Apr-16</u>				
1,1,2-Trichlorotrifluoroethane (Freon 113)	19.6	D	µg/l		20.0	BRL	98	70-130	0.6	20
Acetone	15.4	D	µg/l		20.0	BRL	77	70-130	15	20
Acrylonitrile	19.7	D	µg/l		20.0	BRL	99	70-130	1	20
Benzene	22.2	D	µg/l		20.0	BRL	111	70-130	0.8	20
Bromobenzene	22.4	D	µg/l		20.0	BRL	112	70-130	0.8	20
Bromochloromethane	21.7	D	µg/l		20.0	BRL	108	70-130	1	20
Bromodichloromethane	20.9	D	µg/l		20.0	BRL	105	70-130	0.2	20
Bromoform	22.2	D	µg/l		20.0	BRL	111	70-130	1	20
Bromomethane	17.8	D	µg/l		20.0	BRL	89	70-130	8	20
2-Butanone (MEK)	20.4	D	µg/l		20.0	BRL	102	70-130	15	20
n-Butylbenzene	20.4	D	µg/l		20.0	BRL	102	70-130	3	20
sec-Butylbenzene	21.4	D	µg/l		20.0	BRL	107	70-130	0.09	20
tert-Butylbenzene	20.4	D	µg/l		20.0	BRL	102	70-130	1	20
Carbon disulfide	20.4	D	µg/l		20.0	BRL	102	70-130	1	20
Carbon tetrachloride	20.9	D	µg/l		20.0	BRL	104	70-130	1	20
Chlorobenzene	20.8	D	µg/l		20.0	BRL	104	70-130	0.1	20
Chloroethane	17.5	D	µg/l		20.0	BRL	88	70-130	10	20
Chloroform	20.5	D	µg/l		20.0	BRL	102	70-130	0.4	20
Chloromethane	18.1	D	µg/l		20.0	BRL	91	70-130	0.1	20
2-Chlorotoluene	24.0	D	µg/l		20.0	BRL	120	70-130	3	20
4-Chlorotoluene	22.4	D	µg/l		20.0	BRL	112	70-130	2	20
1,2-Dibromo-3-chloropropane	23.1	D	µg/l		20.0	BRL	116	70-130	0.7	20
Dibromochloromethane	21.0	D	µg/l		20.0	BRL	105	70-130	0.1	20
1,2-Dibromoethane (EDB)	21.2	D	µg/l		20.0	BRL	106	70-130	2	20
Dibromomethane	20.1	D	µg/l		20.0	BRL	101	70-130	2	20
1,2-Dichlorobenzene	22.1	D	µg/l		20.0	BRL	110	70-130	1	20
1,3-Dichlorobenzene	23.9	D	µg/l		20.0	BRL	119	70-130	3	20
1,4-Dichlorobenzene	22.3	D	µg/l		20.0	BRL	112	70-130	1	20
Dichlorodifluoromethane (Freon12)	16.6	D	µg/l		20.0	BRL	83	70-130	4	20
1,1-Dichloroethane	20.6	D	µg/l		20.0	BRL	103	70-130	0.6	20
1,2-Dichloroethane	19.5	D	µg/l		20.0	BRL	98	70-130	2	20
1,1-Dichloroethene	19.6	D	µg/l		20.0	BRL	98	70-130	1	20

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Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1605473 - SW846 5030 Water MS										
<u>Matrix Spike Dup (1605473-MSD1)</u>										
<u>Source: SC19667-04</u>							<u>Prepared & Analyzed: 04-Apr-16</u>			
cis-1,2-Dichloroethene	22.6	D	µg/l		20.0	BRL	113	70-130	0.04	20
trans-1,2-Dichloroethene	20.8	D	µg/l		20.0	BRL	104	70-130	2	20
1,2-Dichloropropane	20.8	D	µg/l		20.0	BRL	104	70-130	0.2	20
1,3-Dichloropropane	20.1	D	µg/l		20.0	BRL	100	70-130	0.6	20
2,2-Dichloropropane	19.8	D	µg/l		20.0	BRL	99	70-130	0.7	20
1,1-Dichloropropene	22.2	D	µg/l		20.0	BRL	111	70-130	0.9	20
cis-1,3-Dichloropropene	21.0	D	µg/l		20.0	BRL	105	70-130	0.4	20
trans-1,3-Dichloropropene	21.0	D	µg/l		20.0	BRL	105	70-130	0.7	20
Ethylbenzene	24.1	D	µg/l		20.0	BRL	120	70-130	0.1	20
Hexachlorobutadiene	19.8	D	µg/l		20.0	BRL	99	70-130	6	20
2-Hexanone (MBK)	21.4	D	µg/l		20.0	BRL	107	70-130	3	20
Isopropylbenzene	23.1	D	µg/l		20.0	BRL	115	70-130	1	20
4-Isopropyltoluene	22.1	D	µg/l		20.0	BRL	110	70-130	2	20
Methyl tert-butyl ether	19.3	D	µg/l		20.0	BRL	96	70-130	1	20
4-Methyl-2-pentanone (MIBK)	20.9	D	µg/l		20.0	BRL	105	70-130	1	20
Methylene chloride	18.9	D	µg/l		20.0	BRL	94	70-130	3	20
Naphthalene	22.7	D	µg/l		20.0	BRL	113	70-130	5	20
n-Propylbenzene	21.1	D	µg/l		20.0	BRL	105	70-130	0	20
Styrene	20.6	D	µg/l		20.0	BRL	103	70-130	1	20
1,1,1,2-Tetrachloroethane	21.5	D	µg/l		20.0	BRL	107	70-130	0.6	20
1,1,2,2-Tetrachloroethane	22.2	D	µg/l		20.0	BRL	111	70-130	1	20
Tetrachloroethene	21.3	D	µg/l		20.0	BRL	106	70-130	0.9	20
Toluene	21.4	D	µg/l		20.0	BRL	107	70-130	1	20
1,2,3-Trichlorobenzene	21.9	D	µg/l		20.0	BRL	109	70-130	5	20
1,2,4-Trichlorobenzene	20.5	D	µg/l		20.0	BRL	102	70-130	7	20
1,3,5-Trichlorobenzene	21.2	D	µg/l		20.0	BRL	106	70-130	3	20
1,1,1-Trichloroethane	20.7	D	µg/l		20.0	BRL	104	70-130	1	20
1,1,2-Trichloroethane	20.7	D	µg/l		20.0	BRL	104	70-130	1	20
Trichloroethene	20.6	D	µg/l		20.0	0.06	103	70-130	2	20
Trichlorofluoromethane (Freon 11)	20.0	D	µg/l		20.0	BRL	100	70-130	0.8	20
1,2,3-Trichloropropane	21.9	D	µg/l		20.0	BRL	110	70-130	0.4	20
1,2,4-Trimethylbenzene	21.7	D	µg/l		20.0	BRL	108	70-130	2	20
1,3,5-Trimethylbenzene	21.2	D	µg/l		20.0	BRL	106	70-130	1	20
Vinyl chloride	16.8	D	µg/l		20.0	BRL	84	70-130	0.9	20
m,p-Xylene	21.4	D	µg/l		20.0	BRL	107	70-130	0.2	20
o-Xylene	23.2	D	µg/l		20.0	BRL	116	70-130	1	20
Tetrahydrofuran	20.8	D	µg/l		20.0	BRL	104	70-130	6	20
Ethyl ether	18.4	D	µg/l		20.0	BRL	92	70-130	7	20
Tert-amyl methyl ether	22.0	D	µg/l		20.0	BRL	110	70-130	2	20
Ethyl tert-butyl ether	22.2	D	µg/l		20.0	BRL	111	70-130	1	20
Di-isopropyl ether	22.3	D	µg/l		20.0	BRL	112	70-130	2	20
Tert-Butanol / butyl alcohol	220	D	µg/l		200	BRL	110	70-130	0.6	20
1,4-Dioxane	231	D	µg/l		200	BRL	116	70-130	3	20
trans-1,4-Dichloro-2-butene	20.2	D	µg/l		20.0	BRL	101	70-130	9	20
Ethanol	346	D	µg/l		400	BRL	87	70-130	9	20
Surrogate: 4-Bromofluorobenzene	53.5		µg/l		50.0		107	70-130		
Surrogate: Toluene-d8	50.1		µg/l		50.0		100	70-130		
Surrogate: 1,2-Dichloroethane-d4	47.0		µg/l		50.0		94	70-130		
Surrogate: Dibromofluoromethane	48.7		µg/l		50.0		97	70-130		

Batch 1605474 - SW846 5030 Water MS

Blank (1605474-BLK1)

Prepared & Analyzed: 04-Apr-16

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Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1605474 - SW846 5030 Water MS										
<u>Blank (1605474-BLK1)</u>										
<u>Prepared & Analyzed: 04-Apr-16</u>										
1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0						
Acetone	< 10.0		µg/l	10.0						
Acrylonitrile	< 0.5		µg/l	0.5						
Benzene	< 1.0		µg/l	1.0						
Bromobenzene	< 1.0		µg/l	1.0						
Bromochloromethane	< 1.0		µg/l	1.0						
Bromodichloromethane	< 0.5		µg/l	0.5						
Bromoform	< 1.0		µg/l	1.0						
Bromomethane	< 2.0		µg/l	2.0						
2-Butanone (MEK)	< 10.0		µg/l	10.0						
n-Butylbenzene	< 1.0		µg/l	1.0						
sec-Butylbenzene	< 1.0		µg/l	1.0						
tert-Butylbenzene	< 1.0		µg/l	1.0						
Carbon disulfide	< 2.0		µg/l	2.0						
Carbon tetrachloride	< 1.0		µg/l	1.0						
Chlorobenzene	< 1.0		µg/l	1.0						
Chloroethane	< 2.0		µg/l	2.0						
Chloroform	< 1.0		µg/l	1.0						
Chloromethane	< 2.0		µg/l	2.0						
2-Chlorotoluene	< 1.0		µg/l	1.0						
4-Chlorotoluene	< 1.0		µg/l	1.0						
1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0						
Dibromochloromethane	< 0.5		µg/l	0.5						
1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5						
Dibromomethane	< 1.0		µg/l	1.0						
1,2-Dichlorobenzene	< 1.0		µg/l	1.0						
1,3-Dichlorobenzene	< 1.0		µg/l	1.0						
1,4-Dichlorobenzene	< 1.0		µg/l	1.0						
Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0						
1,1-Dichloroethane	< 1.0		µg/l	1.0						
1,2-Dichloroethane	< 1.0		µg/l	1.0						
1,1-Dichloroethene	< 1.0		µg/l	1.0						
cis-1,2-Dichloroethene	< 1.0		µg/l	1.0						
trans-1,2-Dichloroethene	< 1.0		µg/l	1.0						
1,2-Dichloropropane	< 1.0		µg/l	1.0						
1,3-Dichloropropane	< 1.0		µg/l	1.0						
2,2-Dichloropropane	< 1.0		µg/l	1.0						
1,1-Dichloropropene	< 1.0		µg/l	1.0						
cis-1,3-Dichloropropene	< 0.5		µg/l	0.5						
trans-1,3-Dichloropropene	< 0.5		µg/l	0.5						
Ethylbenzene	< 1.0		µg/l	1.0						
Hexachlorobutadiene	< 0.5		µg/l	0.5						
2-Hexanone (MBK)	< 10.0		µg/l	10.0						
Isopropylbenzene	< 1.0		µg/l	1.0						
4-Isopropyltoluene	< 1.0		µg/l	1.0						
Methyl tert-butyl ether	< 1.0		µg/l	1.0						
4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0						
Methylene chloride	< 2.0		µg/l	2.0						
Naphthalene	< 1.0		µg/l	1.0						
n-Propylbenzene	< 1.0		µg/l	1.0						
Styrene	< 1.0		µg/l	1.0						
1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0						

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Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1605474 - SW846 5030 Water MS										
<u>Blank (1605474-BLK1)</u>										
1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5						
Tetrachloroethene	< 1.0		µg/l	1.0						
Toluene	< 1.0		µg/l	1.0						
1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0						
1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0						
1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0						
1,1,1-Trichloroethane	< 1.0		µg/l	1.0						
1,1,2-Trichloroethane	< 1.0		µg/l	1.0						
Trichloroethene	< 1.0		µg/l	1.0						
Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0						
1,2,3-Trichloropropane	< 1.0		µg/l	1.0						
1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0						
1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0						
Vinyl chloride	< 1.0		µg/l	1.0						
m,p-Xylene	< 2.0		µg/l	2.0						
o-Xylene	< 1.0		µg/l	1.0						
Tetrahydrofuran	< 2.0		µg/l	2.0						
Ethyl ether	< 1.0		µg/l	1.0						
Tert-amyl methyl ether	< 1.0		µg/l	1.0						
Ethyl tert-butyl ether	< 1.0		µg/l	1.0						
Di-isopropyl ether	< 1.0		µg/l	1.0						
Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0						
1,4-Dioxane	< 20.0		µg/l	20.0						
trans-1,4-Dichloro-2-butene	< 5.0		µg/l	5.0						
Ethanol	< 400		µg/l	400						
<i>Surrogate: 4-Bromofluorobenzene</i>	45.4		µg/l	50.0		91	70-130			
<i>Surrogate: Toluene-d8</i>	51.0		µg/l	50.0		102	70-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	54.6		µg/l	50.0		109	70-130			
<i>Surrogate: Dibromofluoromethane</i>	54.3		µg/l	50.0		109	70-130			
<u>LCS (1605474-BS1)</u>										
<u><i>Prepared & Analyzed: 04-Apr-16</i></u>										
1,1,2-Trichlorotrifluoroethane (Freon 113)	17.5		µg/l	20.0		88	70-130			
Acetone	20.8		µg/l	20.0		104	70-130			
Acrylonitrile	19.5		µg/l	20.0		97	70-130			
Benzene	20.5		µg/l	20.0		103	70-130			
Bromobenzene	20.0		µg/l	20.0		100	70-130			
Bromoform	20.4		µg/l	20.0		102	70-130			
Bromochloromethane	19.5		µg/l	20.0		98	70-130			
Bromodichloromethane	20.7		µg/l	20.0		103	70-130			
Bromoform	15.5		µg/l	20.0		78	70-130			
2-Butanone (MEK)	21.2		µg/l	20.0		106	70-130			
n-Butylbenzene	17.9		µg/l	20.0		90	70-130			
sec-Butylbenzene	18.0		µg/l	20.0		90	70-130			
tert-Butylbenzene	17.4		µg/l	20.0		87	70-130			
Carbon disulfide	17.9		µg/l	20.0		89	70-130			
Carbon tetrachloride	18.5		µg/l	20.0		92	70-130			
Chlorobenzene	19.0		µg/l	20.0		95	70-130			
Chloroethane	15.2		µg/l	20.0		76	70-130			
Chloroform	19.2		µg/l	20.0		96	70-130			
Chloromethane	15.8		µg/l	20.0		79	70-130			
2-Chlorotoluene	21.2		µg/l	20.0		106	70-130			
4-Chlorotoluene	20.0		µg/l	20.0		100	70-130			

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Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1605474 - SW846 5030 Water MS										
<u>LCS (1605474-BS1)</u>										
<u>Prepared & Analyzed: 04-Apr-16</u>										
1,2-Dibromo-3-chloropropane	22.4		µg/l		20.0	112	70-130			
Dibromochloromethane	19.7		µg/l		20.0	99	70-130			
1,2-Dibromoethane (EDB)	20.2		µg/l		20.0	101	70-130			
Dibromomethane	19.5		µg/l		20.0	97	70-130			
1,2-Dichlorobenzene	20.2		µg/l		20.0	101	70-130			
1,3-Dichlorobenzene	21.6		µg/l		20.0	108	70-130			
1,4-Dichlorobenzene	20.1		µg/l		20.0	101	70-130			
Dichlorodifluoromethane (Freon12)	14.3		µg/l		20.0	72	70-130			
1,1-Dichloroethane	18.7		µg/l		20.0	94	70-130			
1,2-Dichloroethane	18.8		µg/l		20.0	94	70-130			
1,1-Dichloroethene	17.5		µg/l		20.0	88	70-130			
cis-1,2-Dichloroethene	20.8		µg/l		20.0	104	70-130			
trans-1,2-Dichloroethene	15.6		µg/l		20.0	78	70-130			
1,2-Dichloropropane	19.7		µg/l		20.0	99	70-130			
1,3-Dichloropropane	19.0		µg/l		20.0	95	70-130			
2,2-Dichloropropane	18.1		µg/l		20.0	90	70-130			
1,1-Dichloropropene	19.9		µg/l		20.0	100	70-130			
cis-1,3-Dichloropropene	20.0		µg/l		20.0	100	70-130			
trans-1,3-Dichloropropene	19.9		µg/l		20.0	99	70-130			
Ethylbenzene	21.7		µg/l		20.0	108	70-130			
Hexachlorobutadiene	16.5		µg/l		20.0	82	70-130			
2-Hexanone (MBK)	20.4		µg/l		20.0	102	70-130			
Isopropylbenzene	20.4		µg/l		20.0	102	70-130			
4-Isopropyltoluene	19.4		µg/l		20.0	97	70-130			
Methyl tert-butyl ether	19.6		µg/l		20.0	98	70-130			
4-Methyl-2-pentanone (MIBK)	20.4		µg/l		20.0	102	70-130			
Methylene chloride	17.4		µg/l		20.0	87	70-130			
Naphthalene	21.1		µg/l		20.0	105	70-130			
n-Propylbenzene	18.1		µg/l		20.0	90	70-130			
Styrene	18.8		µg/l		20.0	94	70-130			
1,1,1,2-Tetrachloroethane	20.0		µg/l		20.0	100	70-130			
1,1,2,2-Tetrachloroethane	20.7		µg/l		20.0	104	70-130			
Tetrachloroethene	18.9		µg/l		20.0	94	70-130			
Toluene	19.1		µg/l		20.0	95	70-130			
1,2,3-Trichlorobenzene	19.8		µg/l		20.0	99	70-130			
1,2,4-Trichlorobenzene	18.1		µg/l		20.0	90	70-130			
1,3,5-Trichlorobenzene	18.6		µg/l		20.0	93	70-130			
1,1,1-Trichloroethane	18.8		µg/l		20.0	94	70-130			
1,1,2-Trichloroethane	20.0		µg/l		20.0	100	70-130			
Trichloroethene	18.8		µg/l		20.0	94	70-130			
Trichlorofluoromethane (Freon 11)	16.6		µg/l		20.0	83	70-130			
1,2,3-Trichloropropane	20.4		µg/l		20.0	102	70-130			
1,2,4-Trimethylbenzene	18.8		µg/l		20.0	94	70-130			
1,3,5-Trimethylbenzene	18.4		µg/l		20.0	92	70-130			
Vinyl chloride	12.9	QM9	µg/l		20.0	64	70-130			
m,p-Xylene	19.3		µg/l		20.0	96	70-130			
o-Xylene	21.0		µg/l		20.0	105	70-130			
Tetrahydrofuran	22.2		µg/l		20.0	111	70-130			
Ethyl ether	16.9		µg/l		20.0	85	70-130			
Tert-amyl methyl ether	20.9		µg/l		20.0	105	70-130			
Ethyl tert-butyl ether	21.4		µg/l		20.0	107	70-130			
Di-isopropyl ether	21.2		µg/l		20.0	106	70-130			

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Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1605474 - SW846 5030 Water MS										
LCS (1605474-BS1)										
						<u>Prepared & Analyzed: 04-Apr-16</u>				
Tert-Butanol / butyl alcohol	239		µg/l		200	120	70-130			
1,4-Dioxane	220		µg/l		200	110	70-130			
trans-1,4-Dichloro-2-butene	21.8		µg/l		20.0	109	70-130			
Ethanol	438		µg/l		400	109	70-130			
<i>Surrogate: 4-Bromofluorobenzene</i>	52.5		µg/l		50.0	105	70-130			
<i>Surrogate: Toluene-d8</i>	49.5		µg/l		50.0	99	70-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	47.4		µg/l		50.0	95	70-130			
<i>Surrogate: Dibromofluoromethane</i>	48.5		µg/l		50.0	97	70-130			
LCS Dup (1605474-BSD1)										
						<u>Prepared & Analyzed: 04-Apr-16</u>				
1,1,2-Trichlorotrifluoroethane (Freon 113)	15.6		µg/l		20.0	78	70-130	11	20	
Acetone	18.4		µg/l		20.0	92	70-130	12	20	
Acrylonitrile	17.6		µg/l		20.0	88	70-130	10	20	
Benzene	21.0		µg/l		20.0	105	70-130	2	20	
Bromobenzene	21.7		µg/l		20.0	109	70-130	8	20	
Bromoform	20.1		µg/l		20.0	101	70-130	1	20	
Bromochloromethane	19.3		µg/l		20.0	97	70-130	1	20	
Bromodichloromethane	19.3		µg/l		20.0	106	70-130	2	20	
Bromoform	21.2		µg/l		20.0	80	70-130	3	20	
2-Butanone (MEK)	16.0		µg/l		20.0	104	70-130	2	20	
n-Butylbenzene	18.9		µg/l		20.0	94	70-130	5	20	
sec-Butylbenzene	20.6		µg/l		20.0	103	70-130	13	20	
tert-Butylbenzene	19.7		µg/l		20.0	99	70-130	13	20	
Carbon disulfide	17.0		µg/l		20.0	85	70-130	5	20	
Carbon tetrachloride	19.6		µg/l		20.0	98	70-130	6	20	
Chlorobenzene	19.6		µg/l		20.0	98	70-130	3	20	
Chloroethane	16.3		µg/l		20.0	82	70-130	7	20	
Chloroform	19.2		µg/l		20.0	96	70-130	0.2	20	
Chloromethane	15.5		µg/l		20.0	78	70-130	1	20	
2-Chlorotoluene	23.0		µg/l		20.0	115	70-130	8	20	
4-Chlorotoluene	21.7		µg/l		20.0	108	70-130	8	20	
1,2-Dibromo-3-chloropropane	21.4		µg/l		20.0	107	70-130	4	20	
Dibromochloromethane	19.9		µg/l		20.0	100	70-130	1	20	
1,2-Dibromoethane (EDB)	20.5		µg/l		20.0	103	70-130	2	20	
Dibromomethane	19.2		µg/l		20.0	96	70-130	1	20	
1,2-Dichlorobenzene	20.6		µg/l		20.0	103	70-130	2	20	
1,3-Dichlorobenzene	23.4		µg/l		20.0	117	70-130	8	20	
1,4-Dichlorobenzene	20.6		µg/l		20.0	103	70-130	2	20	
Dichlorodifluoromethane (Freon12)	15.1		µg/l		20.0	76	70-130	6	20	
1,1-Dichloroethane	19.0		µg/l		20.0	95	70-130	2	20	
1,2-Dichloroethane	18.5		µg/l		20.0	93	70-130	1	20	
1,1-Dichloroethene	16.6		µg/l		20.0	83	70-130	5	20	
cis-1,2-Dichloroethene	20.9		µg/l		20.0	104	70-130	0.4	20	
trans-1,2-Dichloroethene	19.0		µg/l		20.0	95	70-130	20	20	
1,2-Dichloropropane	19.8		µg/l		20.0	99	70-130	0.4	20	
1,3-Dichloropropane	18.8		µg/l		20.0	94	70-130	1	20	
2,2-Dichloropropane	18.5		µg/l		20.0	93	70-130	2	20	
1,1-Dichloropropene	20.9		µg/l		20.0	105	70-130	5	20	
cis-1,3-Dichloropropene	20.0		µg/l		20.0	100	70-130	0.2	20	
trans-1,3-Dichloropropene	20.1		µg/l		20.0	100	70-130	1	20	
Ethylbenzene	22.7		µg/l		20.0	114	70-130	5	20	
Hexachlorobutadiene	19.0		µg/l		20.0	95	70-130	14	20	

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Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1605474 - SW846 5030 Water MS										
<u>LCS Dup (1605474-BSD1)</u>										
<u>Prepared & Analyzed: 04-Apr-16</u>										
2-Hexanone (MBK)	20.9		µg/l		20.0	104	70-130	2	20	
Isopropylbenzene	22.1		µg/l		20.0	111	70-130	8	20	
4-Isopropyltoluene	20.5		µg/l		20.0	103	70-130	6	20	
Methyl tert-butyl ether	18.4		µg/l		20.0	92	70-130	6	20	
4-Methyl-2-pentanone (MIBK)	20.0		µg/l		20.0	100	70-130	2	20	
Methylene chloride	15.3		µg/l		20.0	77	70-130	13	20	
Naphthalene	22.0		µg/l		20.0	110	70-130	4	20	
n-Propylbenzene	20.1		µg/l		20.0	100	70-130	10	20	
Styrene	19.6		µg/l		20.0	98	70-130	4	20	
1,1,1,2-Tetrachloroethane	20.1		µg/l		20.0	100	70-130	0.1	20	
1,1,2,2-Tetrachloroethane	20.9		µg/l		20.0	104	70-130	0.8	20	
Tetrachloroethene	20.6		µg/l		20.0	103	70-130	9	20	
Toluene	20.1		µg/l		20.0	101	70-130	5	20	
1,2,3-Trichlorobenzene	21.0		µg/l		20.0	105	70-130	5	20	
1,2,4-Trichlorobenzene	19.3		µg/l		20.0	97	70-130	7	20	
1,3,5-Trichlorobenzene	20.0		µg/l		20.0	100	70-130	7	20	
1,1,1-Trichloroethane	19.6		µg/l		20.0	98	70-130	4	20	
1,1,2-Trichloroethane	20.0		µg/l		20.0	100	70-130	0	20	
Trichloroethene	19.4		µg/l		20.0	97	70-130	3	20	
Trichlorofluoromethane (Freon 11)	17.3		µg/l		20.0	86	70-130	4	20	
1,2,3-Trichloropropane	20.2		µg/l		20.0	101	70-130	0.7	20	
1,2,4-Trimethylbenzene	20.8		µg/l		20.0	104	70-130	10	20	
1,3,5-Trimethylbenzene	20.4		µg/l		20.0	102	70-130	10	20	
Vinyl chloride	14.0		µg/l		20.0	70	70-130	9	20	
m,p-Xylene	20.2		µg/l		20.0	101	70-130	4	20	
o-Xylene	22.0		µg/l		20.0	110	70-130	5	20	
Tetrahydrofuran	21.6		µg/l		20.0	108	70-130	3	20	
Ethyl ether	16.3		µg/l		20.0	82	70-130	3	20	
Tert-amyl methyl ether	20.3		µg/l		20.0	102	70-130	3	20	
Ethyl tert-butyl ether	20.8		µg/l		20.0	104	70-130	3	20	
Di-isopropyl ether	20.7		µg/l		20.0	104	70-130	2	20	
Tert-Butanol / butyl alcohol	209		µg/l		200	104	70-130	13	20	
1,4-Dioxane	216		µg/l		200	108	70-130	2	20	
trans-1,4-Dichloro-2-butene	21.6		µg/l		20.0	108	70-130	1	20	
Ethanol	313	QR2	µg/l		400	78	70-130	33	20	
Surrogate: 4-Bromofluorobenzene	54.9		µg/l		50.0	110	70-130			
Surrogate: Toluene-d8	50.3		µg/l		50.0	101	70-130			
Surrogate: 1,2-Dichloroethane-d4	46.9		µg/l		50.0	94	70-130			
Surrogate: Dibromofluoromethane	48.7		µg/l		50.0	97	70-130			
<u>Matrix Spike (1605474-MS1)</u>										
<u>Source: SC19667-21</u>										
<u>Prepared: 04-Apr-16 Analyzed: 05-Apr-16</u>										
1,1,2-Trichlorotrifluoroethane (Freon 113)	17.6	D	µg/l		20.0	BRL	88	70-130		
Acetone	26.9	D	µg/l		20.0	11.1	79	70-130		
Acrylonitrile	17.9	D	µg/l		20.0	BRL	90	70-130		
Benzene	22.8	D	µg/l		20.0	1.1	108	70-130		
Bromobenzene	22.6	D	µg/l		20.0	BRL	113	70-130		
Bromochloromethane	21.3	D	µg/l		20.0	BRL	107	70-130		
Bromodichloromethane	20.0	D	µg/l		20.0	BRL	100	70-130		
Bromoform	22.3	D	µg/l		20.0	BRL	112	70-130		
Bromomethane	16.6	D	µg/l		20.0	BRL	83	70-130		
2-Butanone (MEK)	89.5	QM7, D	µg/l		20.0	59.1	152	70-130		
n-Butylbenzene	21.0	D	µg/l		20.0	BRL	105	70-130		

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Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1605474 - SW846 5030 Water MS										
<u>Matrix Spike (1605474-MS1)</u>										
<u>Source: SC19667-21</u>										
<u>Prepared: 04-Apr-16 Analyzed: 05-Apr-16</u>										
sec-Butylbenzene	21.6	D	µg/l		20.0	BRL	108	70-130		
tert-Butylbenzene	22.1	D	µg/l		20.0	BRL	110	70-130		
Carbon disulfide	19.0	D	µg/l		20.0	BRL	95	70-130		
Carbon tetrachloride	20.2	D	µg/l		20.0	BRL	101	70-130		
Chlorobenzene	20.5	D	µg/l		20.0	BRL	102	70-130		
Chloroethane	16.6	D	µg/l		20.0	BRL	83	70-130		
Chloroform	20.0	D	µg/l		20.0	BRL	100	70-130		
Chloromethane	16.4	D	µg/l		20.0	BRL	82	70-130		
2-Chlorotoluene	23.6	D	µg/l		20.0	BRL	118	70-130		
4-Chlorotoluene	24.2	D	µg/l		20.0	BRL	121	70-130		
1,2-Dibromo-3-chloropropane	23.4	D	µg/l		20.0	BRL	117	70-130		
Dibromochloromethane	21.0	D	µg/l		20.0	BRL	105	70-130		
1,2-Dibromoethane (EDB)	21.2	D	µg/l		20.0	BRL	106	70-130		
Dibromomethane	20.4	D	µg/l		20.0	BRL	102	70-130		
1,2-Dichlorobenzene	22.5	D	µg/l		20.0	BRL	112	70-130		
1,3-Dichlorobenzene	24.2	D	µg/l		20.0	BRL	121	70-130		
1,4-Dichlorobenzene	22.1	D	µg/l		20.0	BRL	111	70-130		
Dichlorodifluoromethane (Freon12)	15.8	D	µg/l		20.0	BRL	79	70-130		
1,1-Dichloroethane	19.8	D	µg/l		20.0	BRL	99	70-130		
1,2-Dichloroethane	19.4	D	µg/l		20.0	BRL	97	70-130		
1,1-Dichloroethene	16.5	D	µg/l		20.0	BRL	83	70-130		
cis-1,2-Dichloroethene	46.7	D	µg/l		20.0	27.8	95	70-130		
trans-1,2-Dichloroethene	20.0	D	µg/l		20.0	BRL	100	70-130		
1,2-Dichloropropane	20.6	D	µg/l		20.0	BRL	103	70-130		
1,3-Dichloropropane	20.0	D	µg/l		20.0	BRL	100	70-130		
2,2-Dichloropropane	17.5	D	µg/l		20.0	BRL	87	70-130		
1,1-Dichloropropene	21.5	D	µg/l		20.0	BRL	108	70-130		
cis-1,3-Dichloropropene	20.2	D	µg/l		20.0	BRL	101	70-130		
trans-1,3-Dichloropropene	22.2	D	µg/l		20.0	BRL	111	70-130		
Ethylbenzene	48.3	D	µg/l		20.0	25.0	117	70-130		
Hexachlorobutadiene	20.9	D	µg/l		20.0	BRL	104	70-130		
2-Hexanone (MBK)	20.4	D	µg/l		20.0	BRL	102	70-130		
Isopropylbenzene	23.9	D	µg/l		20.0	1.0	115	70-130		
4-Isopropyltoluene	22.5	D	µg/l		20.0	BRL	113	70-130		
Methyl tert-butyl ether	19.4	D	µg/l		20.0	BRL	97	70-130		
4-Methyl-2-pentanone (MIBK)	163	D, E	µg/l		20.0	149	71	70-130		
Methylene chloride	16.7	D	µg/l		20.0	BRL	84	70-130		
Naphthalene	24.8	D	µg/l		20.0	BRL	124	70-130		
n-Propylbenzene	21.2	D	µg/l		20.0	0.7	102	70-130		
Styrene	21.2	D	µg/l		20.0	BRL	106	70-130		
1,1,1,2-Tetrachloroethane	21.4	D	µg/l		20.0	BRL	107	70-130		
1,1,2,2-Tetrachloroethane	22.8	D	µg/l		20.0	BRL	114	70-130		
Tetrachloroethene	21.0	D	µg/l		20.0	BRL	105	70-130		
Toluene	85.2	QM7, D	µg/l		20.0	78.7	33	70-130		
1,2,3-Trichlorobenzene	22.6	D	µg/l		20.0	BRL	113	70-130		
1,2,4-Trichlorobenzene	21.7	D	µg/l		20.0	BRL	108	70-130		
1,3,5-Trichlorobenzene	22.1	D	µg/l		20.0	BRL	111	70-130		
1,1,1-Trichloroethane	20.1	D	µg/l		20.0	BRL	101	70-130		
1,1,2-Trichloroethane	21.0	D	µg/l		20.0	BRL	105	70-130		
Trichloroethene	20.1	D	µg/l		20.0	BRL	100	70-130		
Trichlorofluoromethane (Freon 11)	17.6	D	µg/l		20.0	BRL	88	70-130		
1,2,3-Trichloropropane	21.7	D	µg/l		20.0	BRL	108	70-130		

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Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1605474 - SW846 5030 Water MS										
<u>Matrix Spike (1605474-MS1)</u>										
<u>Source: SC19667-21</u>										
<u>Prepared: 04-Apr-16 Analyzed: 05-Apr-16</u>										
1,2,4-Trimethylbenzene	24.1	D	µg/l		20.0	2.0	111	70-130		
1,3,5-Trimethylbenzene	22.4	D	µg/l		20.0	1.1	106	70-130		
Vinyl chloride	14.6	QM7, D	µg/l		20.0	1.7	64	70-130		
m,p-Xylene	63.1	D	µg/l		20.0	45.7	87	70-130		
o-Xylene	40.3	D	µg/l		20.0	17.4	114	70-130		
Tetrahydrofuran	24.2	D	µg/l		20.0	BRL	121	70-130		
Ethyl ether	17.6	D	µg/l		20.0	BRL	88	70-130		
Tert-amyl methyl ether	21.6	D	µg/l		20.0	BRL	108	70-130		
Ethyl tert-butyl ether	22.4	D	µg/l		20.0	BRL	112	70-130		
Di-isopropyl ether	23.0	D	µg/l		20.0	BRL	115	70-130		
Tert-Butanol / butyl alcohol	202	D	µg/l		200	BRL	101	70-130		
1,4-Dioxane	228	D	µg/l		200	BRL	114	70-130		
trans-1,4-Dichloro-2-butene	22.9	D	µg/l		20.0	BRL	114	70-130		
Ethanol	319	D	µg/l		400	BRL	80	70-130		
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Surrogate: 4-Bromofluorobenzene	54.0		µg/l		50.0		108	70-130		
Surrogate: Toluene-d8	50.0		µg/l		50.0		100	70-130		
Surrogate: 1,2-Dichloroethane-d4	46.4		µg/l		50.0		93	70-130		
Surrogate: Dibromofluoromethane	48.2		µg/l		50.0		96	70-130		
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<u>Matrix Spike Dup (1605474-MSD1)</u>										
<u>Source: SC19667-21</u>										
<u>Prepared: 04-Apr-16 Analyzed: 05-Apr-16</u>										
1,1,2-Trichlorotrifluoroethane (Freon 113)	17.0	D	µg/l		20.0	BRL	85	70-130	3	20
Acetone	25.6	D	µg/l		20.0	11.1	72	70-130	9	20
Acrylonitrile	18.0	D	µg/l		20.0	BRL	90	70-130	0.5	20
Benzene	22.5	D	µg/l		20.0	1.1	107	70-130	1	20
Bromobenzene	22.3	D	µg/l		20.0	BRL	111	70-130	1	20
Bromochloromethane	20.9	D	µg/l		20.0	BRL	105	70-130	2	20
Bromodichloromethane	19.9	D	µg/l		20.0	BRL	99	70-130	0.8	20
Bromoform	21.7	D	µg/l		20.0	BRL	108	70-130	3	20
Bromomethane	16.8	D	µg/l		20.0	BRL	84	70-130	1	20
2-Butanone (MEK)	87.5	QM7, D	µg/l		20.0	59.1	142	70-130	7	20
n-Butylbenzene	20.3	D	µg/l		20.0	BRL	101	70-130	4	20
sec-Butylbenzene	21.2	D	µg/l		20.0	BRL	106	70-130	2	20
tert-Butylbenzene	21.6	D	µg/l		20.0	BRL	108	70-130	2	20
Carbon disulfide	16.9	D	µg/l		20.0	BRL	84	70-130	12	20
Carbon tetrachloride	20.3	D	µg/l		20.0	BRL	101	70-130	0.5	20
Chlorobenzene	20.0	D	µg/l		20.0	BRL	100	70-130	2	20
Chloroethane	14.6	D	µg/l		20.0	BRL	73	70-130	12	20
Chloroform	19.7	D	µg/l		20.0	BRL	98	70-130	2	20
Chloromethane	16.7	D	µg/l		20.0	BRL	83	70-130	2	20
2-Chlorotoluene	23.1	D	µg/l		20.0	BRL	116	70-130	2	20
4-Chlorotoluene	23.7	D	µg/l		20.0	BRL	119	70-130	2	20
1,2-Dibromo-3-chloropropane	22.8	D	µg/l		20.0	BRL	114	70-130	3	20
Dibromochloromethane	20.2	D	µg/l		20.0	BRL	101	70-130	4	20
1,2-Dibromoethane (EDB)	20.8	D	µg/l		20.0	BRL	104	70-130	2	20
Dibromomethane	19.5	D	µg/l		20.0	BRL	97	70-130	4	20
1,2-Dichlorobenzene	21.6	D	µg/l		20.0	BRL	108	70-130	4	20
1,3-Dichlorobenzene	23.6	D	µg/l		20.0	BRL	118	70-130	3	20
1,4-Dichlorobenzene	21.3	D	µg/l		20.0	BRL	107	70-130	4	20
Dichlorodifluoromethane (Freon12)	16.1	D	µg/l		20.0	BRL	80	70-130	1	20
1,1-Dichloroethane	19.6	D	µg/l		20.0	BRL	98	70-130	1	20
1,2-Dichloroethane	18.8	D	µg/l		20.0	BRL	94	70-130	3	20
1,1-Dichloroethene	18.0	D	µg/l		20.0	BRL	90	70-130	8	20

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Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1605474 - SW846 5030 Water MS										
<u>Matrix Spike Dup (1605474-MSD1)</u>										
<u>Source: SC19667-21</u>										
<u>Prepared: 04-Apr-16 Analyzed: 05-Apr-16</u>										
cis-1,2-Dichloroethene	46.1	D	µg/l		20.0	27.8	92	70-130	3	20
trans-1,2-Dichloroethene	20.5	D	µg/l		20.0	BRL	103	70-130	2	20
1,2-Dichloropropane	20.3	D	µg/l		20.0	BRL	102	70-130	1	20
1,3-Dichloropropane	19.5	D	µg/l		20.0	BRL	97	70-130	3	20
2,2-Dichloropropane	17.1	D	µg/l		20.0	BRL	86	70-130	2	20
1,1-Dichloropropene	21.5	D	µg/l		20.0	BRL	108	70-130	0	20
cis-1,3-Dichloropropene	19.9	D	µg/l		20.0	BRL	100	70-130	1	20
trans-1,3-Dichloropropene	21.6	D	µg/l		20.0	BRL	108	70-130	3	20
Ethylbenzene	47.7	D	µg/l		20.0	25.0	114	70-130	3	20
Hexachlorobutadiene	19.8	D	µg/l		20.0	BRL	99	70-130	5	20
2-Hexanone (MBK)	19.7	D	µg/l		20.0	BRL	98	70-130	3	20
Isopropylbenzene	23.5	D	µg/l		20.0	1.0	112	70-130	2	20
4-Isopropyltoluene	21.9	D	µg/l		20.0	BRL	110	70-130	3	20
Methyl tert-butyl ether	18.9	D	µg/l		20.0	BRL	95	70-130	2	20
4-Methyl-2-pentanone (MIBK)	157	QM7, QR5, D, E	µg/l		20.0	149	43	70-130	48	20
Methylene chloride	17.2	D	µg/l		20.0	BRL	86	70-130	3	20
Naphthalene	24.2	D	µg/l		20.0	BRL	121	70-130	2	20
n-Propylbenzene	20.8	D	µg/l		20.0	0.7	100	70-130	2	20
Styrene	20.9	D	µg/l		20.0	BRL	104	70-130	1	20
1,1,1,2-Tetrachloroethane	20.9	D	µg/l		20.0	BRL	104	70-130	3	20
1,1,2,2-Tetrachloroethane	21.8	D	µg/l		20.0	BRL	109	70-130	4	20
Tetrachloroethene	21.3	D	µg/l		20.0	BRL	107	70-130	1	20
Toluene	83.9	QM7, QR5, D	µg/l		20.0	78.7	26	70-130	22	20
1,2,3-Trichlorobenzene	22.3	D	µg/l		20.0	BRL	111	70-130	1	20
1,2,4-Trichlorobenzene	21.4	D	µg/l		20.0	BRL	107	70-130	1	20
1,3,5-Trichlorobenzene	21.6	D	µg/l		20.0	BRL	108	70-130	2	20
1,1,1-Trichloroethane	20.3	D	µg/l		20.0	BRL	101	70-130	0.6	20
1,1,2-Trichloroethane	20.4	D	µg/l		20.0	BRL	102	70-130	3	20
Trichloroethene	19.6	D	µg/l		20.0	BRL	98	70-130	2	20
Trichlorofluoromethane (Freon 11)	17.2	D	µg/l		20.0	BRL	86	70-130	3	20
1,2,3-Trichloropropane	20.8	D	µg/l		20.0	BRL	104	70-130	4	20
1,2,4-Trimethylbenzene	23.9	D	µg/l		20.0	2.0	110	70-130	1	20
1,3,5-Trimethylbenzene	22.0	D	µg/l		20.0	1.1	105	70-130	2	20
Vinyl chloride	14.3	QM7, D	µg/l		20.0	1.7	63	70-130	2	20
m,p-Xylene	62.3	D	µg/l		20.0	45.7	83	70-130	5	20
o-Xylene	39.6	D	µg/l		20.0	17.4	111	70-130	3	20
Tetrahydrofuran	22.9	D	µg/l		20.0	BRL	115	70-130	5	20
Ethyl ether	15.9	D	µg/l		20.0	BRL	80	70-130	10	20
Tert-amyl methyl ether	20.9	D	µg/l		20.0	BRL	104	70-130	4	20
Ethyl tert-butyl ether	21.7	D	µg/l		20.0	BRL	109	70-130	3	20
Di-isopropyl ether	22.2	D	µg/l		20.0	BRL	111	70-130	4	20
Tert-Butanol / butyl alcohol	205	D	µg/l		200	BRL	102	70-130	1	20
1,4-Dioxane	210	D	µg/l		200	BRL	105	70-130	8	20
trans-1,4-Dichloro-2-butene	21.7	D	µg/l		20.0	BRL	109	70-130	5	20
Ethanol	299	D	µg/l		400	BRL	75	70-130	6	20
Surrogate: 4-Bromofluorobenzene	54.5		µg/l		50.0		109	70-130		
Surrogate: Toluene-d8	50.6		µg/l		50.0		101	70-130		
Surrogate: 1,2-Dichloroethane-d4	46.8		µg/l		50.0		94	70-130		
Surrogate: Dibromofluoromethane	48.6		µg/l		50.0		97	70-130		

Batch 1605556 - SW846 5030 Water MS

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Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 160556 - SW846 5030 Water MS										
<u>Blank (160556-BLK1)</u>										
<u>Prepared & Analyzed: 05-Apr-16</u>										
1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0						
Acetone	< 10.0		µg/l	10.0						
Acrylonitrile	< 0.5		µg/l	0.5						
Benzene	< 1.0		µg/l	1.0						
Bromobenzene	< 1.0		µg/l	1.0						
Bromochloromethane	< 1.0		µg/l	1.0						
Bromodichloromethane	< 0.5		µg/l	0.5						
Bromoform	< 1.0		µg/l	1.0						
Bromomethane	< 2.0		µg/l	2.0						
2-Butanone (MEK)	< 10.0		µg/l	10.0						
n-Butylbenzene	< 1.0		µg/l	1.0						
sec-Butylbenzene	< 1.0		µg/l	1.0						
tert-Butylbenzene	< 1.0		µg/l	1.0						
Carbon disulfide	< 2.0		µg/l	2.0						
Carbon tetrachloride	< 1.0		µg/l	1.0						
Chlorobenzene	< 1.0		µg/l	1.0						
Chloroethane	< 2.0		µg/l	2.0						
Chloroform	< 1.0		µg/l	1.0						
Chloromethane	< 2.0		µg/l	2.0						
2-Chlorotoluene	< 1.0		µg/l	1.0						
4-Chlorotoluene	< 1.0		µg/l	1.0						
1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0						
Dibromochloromethane	< 0.5		µg/l	0.5						
1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5						
Dibromomethane	< 1.0		µg/l	1.0						
1,2-Dichlorobenzene	< 1.0		µg/l	1.0						
1,3-Dichlorobenzene	< 1.0		µg/l	1.0						
1,4-Dichlorobenzene	< 1.0		µg/l	1.0						
Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0						
1,1-Dichloroethane	< 1.0		µg/l	1.0						
1,2-Dichloroethane	< 1.0		µg/l	1.0						
1,1-Dichloroethene	< 1.0		µg/l	1.0						
cis-1,2-Dichloroethene	< 1.0		µg/l	1.0						
trans-1,2-Dichloroethene	< 1.0		µg/l	1.0						
1,2-Dichloropropane	< 1.0		µg/l	1.0						
1,3-Dichloropropane	< 1.0		µg/l	1.0						
2,2-Dichloropropane	< 1.0		µg/l	1.0						
1,1-Dichloropropene	< 1.0		µg/l	1.0						
cis-1,3-Dichloropropene	< 0.5		µg/l	0.5						
trans-1,3-Dichloropropene	< 0.5		µg/l	0.5						
Ethylbenzene	< 1.0		µg/l	1.0						
Hexachlorobutadiene	< 0.5		µg/l	0.5						
2-Hexanone (MBK)	< 10.0		µg/l	10.0						
Isopropylbenzene	< 1.0		µg/l	1.0						
4-Isopropyltoluene	< 1.0		µg/l	1.0						
Methyl tert-butyl ether	< 1.0		µg/l	1.0						
4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0						
Methylene chloride	< 2.0		µg/l	2.0						
Naphthalene	< 1.0		µg/l	1.0						
n-Propylbenzene	< 1.0		µg/l	1.0						
Styrene	< 1.0		µg/l	1.0						
1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0						

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Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1605556 - SW846 5030 Water MS										
<u>Blank (1605556-BLK1)</u>										
1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5						
Tetrachloroethene	< 1.0		µg/l	1.0						
Toluene	< 1.0		µg/l	1.0						
1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0						
1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0						
1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0						
1,1,1-Trichloroethane	< 1.0		µg/l	1.0						
1,1,2-Trichloroethane	< 1.0		µg/l	1.0						
Trichloroethene	< 1.0		µg/l	1.0						
Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0						
1,2,3-Trichloropropane	< 1.0		µg/l	1.0						
1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0						
1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0						
Vinyl chloride	< 1.0		µg/l	1.0						
m,p-Xylene	< 2.0		µg/l	2.0						
o-Xylene	< 1.0		µg/l	1.0						
Tetrahydrofuran	< 2.0		µg/l	2.0						
Ethyl ether	< 1.0		µg/l	1.0						
Tert-amyl methyl ether	< 1.0		µg/l	1.0						
Ethyl tert-butyl ether	< 1.0		µg/l	1.0						
Di-isopropyl ether	< 1.0		µg/l	1.0						
Tert-Butanol / butyl alcohol	26.3	QB2	µg/l	10.0						
1,4-Dioxane	< 20.0		µg/l	20.0						
trans-1,4-Dichloro-2-butene	< 5.0		µg/l	5.0						
Ethanol	< 400		µg/l	400						
<i>Surrogate: 4-Bromofluorobenzene</i>	46.7		µg/l	50.0		93	70-130			
<i>Surrogate: Toluene-d8</i>	50.9		µg/l	50.0		102	70-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	52.5		µg/l	50.0		105	70-130			
<i>Surrogate: Dibromofluoromethane</i>	53.1		µg/l	50.0		106	70-130			
<u>LCS (1605556-BS1)</u>										
		QM10								
<u>Prepared & Analyzed: 05-Apr-16</u>										
1,1,2-Trichlorotrifluoroethane (Freon 113)	21.5		µg/l	20.0		108	70-130			
Acetone	19.8		µg/l	20.0		99	70-130			
Acrylonitrile	19.1		µg/l	20.0		96	70-130			
Benzene	21.2		µg/l	20.0		106	70-130			
Bromobenzene	22.5		µg/l	20.0		113	70-130			
Bromoform	20.7		µg/l	20.0		104	70-130			
Bromochloromethane	19.8		µg/l	20.0		99	70-130			
Bromodichloromethane	19.5		µg/l	20.0		108	70-130			
Bromoform	21.5		µg/l	20.0		108	70-130			
Bromomethane	20.4		µg/l	20.0		102	70-130			
2-Butanone (MEK)	18.2		µg/l	20.0		91	70-130			
n-Butylbenzene	20.3		µg/l	20.0		102	70-130			
sec-Butylbenzene	21.6		µg/l	20.0		108	70-130			
tert-Butylbenzene	20.7		µg/l	20.0		104	70-130			
Carbon disulfide	21.1		µg/l	20.0		106	70-130			
Carbon tetrachloride	20.8		µg/l	20.0		104	70-130			
Chlorobenzene	20.2		µg/l	20.0		101	70-130			
Chloroethane	19.8		µg/l	20.0		99	70-130			
Chloroform	19.5		µg/l	20.0		97	70-130			
Chloromethane	15.0		µg/l	20.0		75	70-130			
2-Chlorotoluene	23.7		µg/l	20.0		119	70-130			
4-Chlorotoluene	22.2		µg/l	20.0		111	70-130			

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Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1605556 - SW846 5030 Water MS										
<u>LCS (1605556-BS1)</u>										
QM10										
<u>Prepared & Analyzed: 05-Apr-16</u>										
1,2-Dibromo-3-chloropropane	20.8		µg/l		20.0	104	70-130			
Dibromochloromethane	20.2		µg/l		20.0	101	70-130			
1,2-Dibromoethane (EDB)	20.3		µg/l		20.0	101	70-130			
Dibromomethane	19.3		µg/l		20.0	97	70-130			
1,2-Dichlorobenzene	20.9		µg/l		20.0	104	70-130			
1,3-Dichlorobenzene	24.0		µg/l		20.0	120	70-130			
1,4-Dichlorobenzene	21.2		µg/l		20.0	106	70-130			
Dichlorodifluoromethane (Freon12)	15.0		µg/l		20.0	75	70-130			
1,1-Dichloroethane	18.7		µg/l		20.0	94	70-130			
1,2-Dichloroethane	18.7		µg/l		20.0	93	70-130			
1,1-Dichloroethene	20.7		µg/l		20.0	104	70-130			
cis-1,2-Dichloroethene	21.6		µg/l		20.0	108	70-130			
trans-1,2-Dichloroethene	20.8		µg/l		20.0	104	70-130			
1,2-Dichloropropane	19.6		µg/l		20.0	98	70-130			
1,3-Dichloropropane	18.6		µg/l		20.0	93	70-130			
2,2-Dichloropropane	22.7		µg/l		20.0	113	70-130			
1,1-Dichloropropene	22.0		µg/l		20.0	110	70-130			
cis-1,3-Dichloropropene	20.9		µg/l		20.0	104	70-130			
trans-1,3-Dichloropropene	20.8		µg/l		20.0	104	70-130			
Ethylbenzene	23.7		µg/l		20.0	119	70-130			
Hexachlorobutadiene	21.3		µg/l		20.0	106	70-130			
2-Hexanone (MBK)	18.7		µg/l		20.0	94	70-130			
Isopropylbenzene	23.2		µg/l		20.0	116	70-130			
4-Isopropyltoluene	21.9		µg/l		20.0	109	70-130			
Methyl tert-butyl ether	18.1		µg/l		20.0	90	70-130			
4-Methyl-2-pentanone (MIBK)	18.2		µg/l		20.0	91	70-130			
Methylene chloride	19.1		µg/l		20.0	95	70-130			
Naphthalene	21.8		µg/l		20.0	109	70-130			
n-Propylbenzene	21.0		µg/l		20.0	105	70-130			
Styrene	20.3		µg/l		20.0	102	70-130			
1,1,1,2-Tetrachloroethane	20.8		µg/l		20.0	104	70-130			
1,1,2,2-Tetrachloroethane	20.9		µg/l		20.0	105	70-130			
Tetrachloroethene	22.1		µg/l		20.0	110	70-130			
Toluene	20.6		µg/l		20.0	103	70-130			
1,2,3-Trichlorobenzene	22.0		µg/l		20.0	110	70-130			
1,2,4-Trichlorobenzene	20.7		µg/l		20.0	104	70-130			
1,3,5-Trichlorobenzene	21.8		µg/l		20.0	109	70-130			
1,1,1-Trichloroethane	20.3		µg/l		20.0	102	70-130			
1,1,2-Trichloroethane	19.8		µg/l		20.0	99	70-130			
Trichloroethene	19.4		µg/l		20.0	97	70-130			
Trichlorofluoromethane (Freon 11)	21.7		µg/l		20.0	108	70-130			
1,2,3-Trichloropropane	19.3		µg/l		20.0	97	70-130			
1,2,4-Trimethylbenzene	21.7		µg/l		20.0	108	70-130			
1,3,5-Trimethylbenzene	21.3		µg/l		20.0	106	70-130			
Vinyl chloride	17.4		µg/l		20.0	87	70-130			
m,p-Xylene	21.3		µg/l		20.0	107	70-130			
o-Xylene	22.7		µg/l		20.0	113	70-130			
Tetrahydrofuran	19.3		µg/l		20.0	96	70-130			
Ethyl ether	20.1		µg/l		20.0	101	70-130			
Tert-amyl methyl ether	20.2		µg/l		20.0	101	70-130			
Ethyl tert-butyl ether	21.0		µg/l		20.0	105	70-130			
Di-isopropyl ether	20.4		µg/l		20.0	102	70-130			

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Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit		
Batch 1605556 - SW846 5030 Water MS												
LCS (1605556-BS1)		QM10			<u>Prepared & Analyzed: 05-Apr-16</u>							
Tert-Butanol / butyl alcohol	210	B	µg/l		200	105	70-130					
1,4-Dioxane	200		µg/l		200	100	70-130					
trans-1,4-Dichloro-2-butene	21.7		µg/l		20.0	109	70-130					
Ethanol	377		µg/l		400	94	70-130					
<i>Surrogate: 4-Bromofluorobenzene</i>	55.3		µg/l		50.0	111	70-130					
<i>Surrogate: Toluene-d8</i>	50.8		µg/l		50.0	102	70-130					
<i>Surrogate: 1,2-Dichloroethane-d4</i>	46.9		µg/l		50.0	94	70-130					
<i>Surrogate: Dibromofluoromethane</i>	48.2		µg/l		50.0	96	70-130					
LCS Dup (1605556-BSD1)		QM10			<u>Prepared & Analyzed: 05-Apr-16</u>							
1,1,2-Trichlorotrifluoroethane (Freon 113)	19.8		µg/l		20.0	99	70-130	8	20			
Acetone	22.0		µg/l		20.0	110	70-130	10	20			
Acrylonitrile	19.2		µg/l		20.0	96	70-130	0.4	20			
Benzene	20.6		µg/l		20.0	103	70-130	3	20			
Bromobenzene	21.4		µg/l		20.0	107	70-130	5	20			
Bromochloromethane	20.5		µg/l		20.0	103	70-130	0.8	20			
Bromodichloromethane	19.5		µg/l		20.0	98	70-130	2	20			
Bromoform	21.1		µg/l		20.0	106	70-130	2	20			
Bromomethane	19.5		µg/l		20.0	97	70-130	5	20			
2-Butanone (MEK)	19.6		µg/l		20.0	98	70-130	8	20			
n-Butylbenzene	19.3		µg/l		20.0	97	70-130	5	20			
sec-Butylbenzene	20.2		µg/l		20.0	101	70-130	7	20			
tert-Butylbenzene	19.4		µg/l		20.0	97	70-130	6	20			
Carbon disulfide	19.2		µg/l		20.0	96	70-130	9	20			
Carbon tetrachloride	19.6		µg/l		20.0	98	70-130	6	20			
Chlorobenzene	19.3		µg/l		20.0	96	70-130	5	20			
Chloroethane	18.7		µg/l		20.0	93	70-130	6	20			
Chloroform	19.1		µg/l		20.0	96	70-130	2	20			
Chloromethane	13.7	QM9	µg/l		20.0	68	70-130	9	20			
2-Chlorotoluene	22.3		µg/l		20.0	112	70-130	6	20			
4-Chlorotoluene	20.9		µg/l		20.0	105	70-130	6	20			
1,2-Dibromo-3-chloropropane	20.6		µg/l		20.0	103	70-130	0.7	20			
Dibromochloromethane	20.2		µg/l		20.0	101	70-130	0.3	20			
1,2-Dibromoethane (EDB)	20.0		µg/l		20.0	100	70-130	1	20			
Dibromomethane	19.5		µg/l		20.0	97	70-130	0.8	20			
1,2-Dichlorobenzene	20.3		µg/l		20.0	102	70-130	3	20			
1,3-Dichlorobenzene	22.8		µg/l		20.0	114	70-130	5	20			
1,4-Dichlorobenzene	20.5		µg/l		20.0	102	70-130	4	20			
Dichlorodifluoromethane (Freon12)	13.9	QM9	µg/l		20.0	69	70-130	8	20			
1,1-Dichloroethane	18.3		µg/l		20.0	91	70-130	2	20			
1,2-Dichloroethane	18.8		µg/l		20.0	94	70-130	1	20			
1,1-Dichloroethene	18.9		µg/l		20.0	95	70-130	9	20			
cis-1,2-Dichloroethene	21.0		µg/l		20.0	105	70-130	3	20			
trans-1,2-Dichloroethene	19.4		µg/l		20.0	97	70-130	7	20			
1,2-Dichloropropane	19.2		µg/l		20.0	96	70-130	2	20			
1,3-Dichloropropane	18.9		µg/l		20.0	94	70-130	2	20			
2,2-Dichloropropane	21.4		µg/l		20.0	107	70-130	6	20			
1,1-Dichloropropene	20.8		µg/l		20.0	104	70-130	6	20			
cis-1,3-Dichloropropene	20.4		µg/l		20.0	102	70-130	2	20			
trans-1,3-Dichloropropene	20.8		µg/l		20.0	104	70-130	0.1	20			
Ethylbenzene	22.2		µg/l		20.0	111	70-130	7	20			
Hexachlorobutadiene	20.8		µg/l		20.0	104	70-130	2	20			

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Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1605556 - SW846 5030 Water MS										
<u>LCS Dup (1605556-BSD1)</u>										
			QM10			<u>Prepared & Analyzed: 05-Apr-16</u>				
2-Hexanone (MBK)	19.2		µg/l		20.0	96	70-130	3	20	
Isopropylbenzene	21.4		µg/l		20.0	107	70-130	8	20	
4-Isopropyltoluene	20.7		µg/l		20.0	104	70-130	5	20	
Methyl tert-butyl ether	18.3		µg/l		20.0	92	70-130	1	20	
4-Methyl-2-pentanone (MIBK)	18.8		µg/l		20.0	94	70-130	4	20	
Methylene chloride	18.5		µg/l		20.0	92	70-130	3	20	
Naphthalene	21.9		µg/l		20.0	110	70-130	0.5	20	
n-Propylbenzene	19.4		µg/l		20.0	97	70-130	8	20	
Styrene	19.5		µg/l		20.0	98	70-130	4	20	
1,1,1,2-Tetrachloroethane	20.1		µg/l		20.0	101	70-130	3	20	
1,1,2,2-Tetrachloroethane	20.8		µg/l		20.0	104	70-130	0.7	20	
Tetrachloroethene	20.8		µg/l		20.0	104	70-130	6	20	
Toluene	20.0		µg/l		20.0	100	70-130	3	20	
1,2,3-Trichlorobenzene	21.8		µg/l		20.0	109	70-130	1	20	
1,2,4-Trichlorobenzene	20.3		µg/l		20.0	102	70-130	2	20	
1,3,5-Trichlorobenzene	21.3		µg/l		20.0	107	70-130	2	20	
1,1,1-Trichloroethane	19.5		µg/l		20.0	97	70-130	4	20	
1,1,2-Trichloroethane	20.0		µg/l		20.0	100	70-130	1	20	
Trichloroethene	19.0		µg/l		20.0	95	70-130	2	20	
Trichlorofluoromethane (Freon 11)	20.3		µg/l		20.0	101	70-130	7	20	
1,2,3-Trichloropropane	19.2		µg/l		20.0	96	70-130	0.9	20	
1,2,4-Trimethylbenzene	20.4		µg/l		20.0	102	70-130	6	20	
1,3,5-Trimethylbenzene	19.8		µg/l		20.0	99	70-130	7	20	
Vinyl chloride	14.9		µg/l		20.0	74	70-130	15	20	
m,p-Xylene	19.9		µg/l		20.0	99	70-130	7	20	
o-Xylene	21.2		µg/l		20.0	106	70-130	7	20	
Tetrahydrofuran	19.4		µg/l		20.0	97	70-130	0.7	20	
Ethyl ether	19.5		µg/l		20.0	98	70-130	3	20	
Tert-amyl methyl ether	20.0		µg/l		20.0	100	70-130	1	20	
Ethyl tert-butyl ether	21.2		µg/l		20.0	106	70-130	0.9	20	
Di-isopropyl ether	20.5		µg/l		20.0	102	70-130	0.1	20	
Tert-Butanol / butyl alcohol	221	B	µg/l		200	111	70-130	5	20	
1,4-Dioxane	208		µg/l		200	104	70-130	4	20	
trans-1,4-Dichloro-2-butene	21.8		µg/l		20.0	109	70-130	0.3	20	
Ethanol	423		µg/l		400	106	70-130	12	20	
Surrogate: 4-Bromofluorobenzene	54.2		µg/l		50.0	108	70-130			
Surrogate: Toluene-d8	51.2		µg/l		50.0	102	70-130			
Surrogate: 1,2-Dichloroethane-d4	47.0		µg/l		50.0	94	70-130			
Surrogate: Dibromofluoromethane	48.7		µg/l		50.0	97	70-130			

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Total Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1605535 - SW846 3005A										
<u>Blank (1605535-BLK1)</u>										
Chromium	< 0.0050		mg/l	0.0050						
Nickel	< 0.0050		mg/l	0.0050						
Zinc	< 0.0050		mg/l	0.0050						
Arsenic	< 0.0040		mg/l	0.0040						
Copper	< 0.0050		mg/l	0.0050						
Cadmium	< 0.0025		mg/l	0.0025						
<u>LCS (1605535-BS1)</u>										
Arsenic	1.27		mg/l	0.0040	1.25	101	85-115			
Zinc	1.38		mg/l	0.0050	1.25	110	85-115			
Nickel	1.25		mg/l	0.0050	1.25	100	85-115			
Cadmium	1.15		mg/l	0.0025	1.25	92	85-115			
Copper	1.36		mg/l	0.0050	1.25	109	85-115			
Chromium	1.33		mg/l	0.0050	1.25	107	85-115			
<u>LCS Dup (1605535-BSD1)</u>										
Copper	1.36		mg/l	0.0050	1.25	109	85-115	0.4	20	
Zinc	1.39		mg/l	0.0050	1.25	111	85-115	1	20	
Nickel	1.27		mg/l	0.0050	1.25	102	85-115	2	20	
Chromium	1.34		mg/l	0.0050	1.25	108	85-115	0.9	20	
Cadmium	1.19		mg/l	0.0025	1.25	95	85-115	3	20	
Arsenic	1.28		mg/l	0.0040	1.25	103	85-115	1	20	
<u>Duplicate (1605535-DUP1)</u>										
Nickel	0.0138		mg/l	0.0050		0.0134		3	20	
Zinc	0.0221		mg/l	0.0050		0.0206		7	20	
Copper	0.0160		mg/l	0.0050		0.0158		0.9	20	
Chromium	0.0012	J	mg/l	0.0050		0.0010		13	20	
Cadmium	< 0.0025		mg/l	0.0025		BRL				
Arsenic	0.0153		mg/l	0.0040		0.0157		3	20	
<u>Matrix Spike (1605535-MS1)</u>										
Zinc	1.36		mg/l	0.0050	1.25	0.0206	107	75-125		
Cadmium	1.14		mg/l	0.0025	1.25	BRL	91	75-125		
Nickel	1.21		mg/l	0.0050	1.25	0.0134	96	75-125		
Chromium	1.32		mg/l	0.0050	1.25	0.0010	106	75-125		
Copper	1.43		mg/l	0.0050	1.25	0.0158	113	75-125		
Arsenic	1.39		mg/l	0.0040	1.25	0.0157	110	75-125		
<u>Matrix Spike Dup (1605535-MSD1)</u>										
Chromium	1.27		mg/l	0.0050	1.25	0.0010	101	75-125	4	20
Copper	1.38		mg/l	0.0050	1.25	0.0158	109	75-125	4	20
Nickel	1.18		mg/l	0.0050	1.25	0.0134	93	75-125	3	20
Cadmium	1.12		mg/l	0.0025	1.25	BRL	89	75-125	2	20
Arsenic	1.35		mg/l	0.0040	1.25	0.0157	106	75-125	3	20
Zinc	1.33		mg/l	0.0050	1.25	0.0206	105	75-125	2	20
<u>Post Spike (1605535-PS1)</u>										
Arsenic	1.37		mg/l	0.0040	1.25	0.0157	108	80-120		
Cadmium	1.13		mg/l	0.0025	1.25	BRL	90	80-120		
Chromium	1.28		mg/l	0.0050	1.25	0.0010	103	80-120		
Nickel	1.19		mg/l	0.0050	1.25	0.0134	94	80-120		
Zinc	1.34		mg/l	0.0050	1.25	0.0206	105	80-120		
Copper	1.40		mg/l	0.0050	1.25	0.0158	111	80-120		

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Soluble Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1605533 - SW846 3005A										
<u>Blank (1605533-BLK1)</u>										
Copper	< 0.0050		mg/l	0.0050						
Nickel	< 0.0050		mg/l	0.0050						
Chromium	< 0.0050		mg/l	0.0050						
Zinc	< 0.0050		mg/l	0.0050						
Cadmium	< 0.0025		mg/l	0.0025						
Arsenic	< 0.0040		mg/l	0.0040						
<u>LCS (1605533-BS1)</u>										
Zinc	1.33		mg/l	0.0050	1.25	106	85-115			
Arsenic	1.29		mg/l	0.0040	1.25	103	85-115			
Cadmium	1.29		mg/l	0.0025	1.25	103	85-115			
Chromium	1.20		mg/l	0.0050	1.25	96	85-115			
Copper	1.31		mg/l	0.0050	1.25	105	85-115			
Nickel	1.34		mg/l	0.0050	1.25	107	85-115			
<u>LCS Dup (1605533-BSD1)</u>										
Arsenic	1.26		mg/l	0.0040	1.25	101	85-115	2	20	
Zinc	1.29		mg/l	0.0050	1.25	103	85-115	3	20	
Nickel	1.32		mg/l	0.0050	1.25	105	85-115	2	20	
Copper	1.36		mg/l	0.0050	1.25	109	85-115	4	20	
Cadmium	1.27		mg/l	0.0025	1.25	102	85-115	2	20	
Chromium	1.30		mg/l	0.0050	1.25	104	85-115	8	20	
<u>Duplicate (1605533-DUP1)</u>										
<u>Source: SC19667-22</u>					<u>Prepared: 05-Apr-16 Analyzed: 06-Apr-16</u>					
Cadmium	< 0.0025		mg/l	0.0025		BRL				20
Nickel	0.109		mg/l	0.0050		0.117		7	20	
Copper	< 0.0050		mg/l	0.0050		BRL				20
Chromium	0.0299		mg/l	0.0050		0.0342		13	20	
Arsenic	< 0.0040		mg/l	0.0040		BRL				20
Zinc	1.25		mg/l	0.0050		1.32		6	20	
<u>Matrix Spike (1605533-MS1)</u>										
<u>Source: SC19667-22</u>					<u>Prepared: 05-Apr-16 Analyzed: 06-Apr-16</u>					
Chromium	1.22		mg/l	0.0050	1.25	0.0342	95	75-125		
Zinc	2.51		mg/l	0.0050	1.25	1.32	95	75-125		
Copper	1.37		mg/l	0.0050	1.25	BRL	110	75-125		
Cadmium	1.22		mg/l	0.0025	1.25	BRL	98	75-125		
Arsenic	1.35		mg/l	0.0040	1.25	BRL	108	75-125		
Nickel	1.38		mg/l	0.0050	1.25	0.117	101	75-125		
<u>Matrix Spike Dup (1605533-MSD1)</u>										
<u>Source: SC19667-22</u>					<u>Prepared: 05-Apr-16 Analyzed: 06-Apr-16</u>					
Copper	1.38		mg/l	0.0050	1.25	BRL	110	75-125	0.3	20
Arsenic	1.31		mg/l	0.0040	1.25	BRL	105	75-125	3	20
Cadmium	1.21		mg/l	0.0025	1.25	BRL	97	75-125	0.8	20
Chromium	1.24		mg/l	0.0050	1.25	0.0342	97	75-125	2	20
Zinc	2.48		mg/l	0.0050	1.25	1.32	93	75-125	1	20
Nickel	1.36		mg/l	0.0050	1.25	0.117	100	75-125	1	20
<u>Post Spike (1605533-PS1)</u>										
<u>Source: SC19667-22</u>					<u>Prepared: 05-Apr-16 Analyzed: 06-Apr-16</u>					
Chromium	1.18		mg/l	0.0050	1.25	0.0342	91	80-120		
Copper	1.34		mg/l	0.0050	1.25	BRL	107	80-120		
Nickel	1.36		mg/l	0.0050	1.25	0.117	100	80-120		
Zinc	2.49		mg/l	0.0050	1.25	1.32	93	80-120		
Arsenic	1.32		mg/l	0.0040	1.25	BRL	105	80-120		
Cadmium	1.21		mg/l	0.0025	1.25	BRL	97	80-120		
Batch 1605539 - SW846 3005A										
<u>Blank (1605539-BLK1)</u>					<u>Prepared: 06-Apr-16 Analyzed: 07-Apr-16</u>					
Arsenic	< 0.00002	U	mg/l	0.00002						

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Soluble Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1605539 - SW846 3005A										
<u>Blank (1605539-BLK1)</u>										
Cadmium	< 0.000007	U	mg/l	0.000007				<u>Prepared: 06-Apr-16</u>	<u>Analyzed: 07-Apr-16</u>	
Copper	0.00004	J	mg/l	0.00002						
Zinc	0.00309	J	mg/l	0.00012						
<u>LCS (1605539-BS1)</u>										
Arsenic	0.0595	QC2, D	mg/l	0.00025	0.0500		119	85-115		
Zinc	0.0550	D	mg/l	0.00116	0.0500		110	85-115		
Copper	0.0509	D	mg/l	0.00019	0.0500		102	85-115		
Cadmium	0.0541	D	mg/l	0.00007	0.0500		108	85-115		
<u>LCS Dup (1605539-BSD1)</u>										
Arsenic	0.0583	QC2, D	mg/l	0.00025	0.0500		117	85-115	2	20
Cadmium	0.0517	D	mg/l	0.00007	0.0500		103	85-115	4	20
Copper	0.0492	D	mg/l	0.00019	0.0500		98	85-115	3	20
Zinc	0.0528	D	mg/l	0.00116	0.0500		106	85-115	4	20
<u>Duplicate (1605539-DUP1)</u>										
Copper	0.00139		mg/l	0.00002		0.00153		10		20
Cadmium	0.00005	J	mg/l	0.000007		0.00005		2		20
Arsenic	< 0.00002	U	mg/l	0.00002		BRL		20		
Zinc	0.00762	R06, J	mg/l	0.00012		0.00867		13		20
<u>Matrix Spike (1605539-MS1)</u>										
Arsenic	0.0574	D	mg/l	0.00025	0.0500	BRL	115	75-125		
Cadmium	0.0513	D	mg/l	0.00007	0.0500	0.00005	103	75-125		
Copper	0.0510	D	mg/l	0.00019	0.0500	0.00153	99	75-125		
Zinc	0.0617	D	mg/l	0.00116	0.0500	0.00867	106	75-125		
<u>Matrix Spike Dup (1605539-MSD1)</u>										
Copper	0.0515	D	mg/l	0.00019	0.0500	0.00153	100	75-125	1	20
Cadmium	0.0534	D	mg/l	0.00007	0.0500	0.00005	107	75-125	4	20
Zinc	0.0635	D	mg/l	0.00116	0.0500	0.00867	110	75-125	3	20
Arsenic	0.0588	D	mg/l	0.00025	0.0500	BRL	118	75-125	2	20
<u>Post Spike (1605539-PS1)</u>										
Arsenic	0.0591	D	mg/l	0.00025	0.0500	BRL	118	75-125		
Cadmium	0.0521	D	mg/l	0.00007	0.0500	0.00005	104	75-125		
Copper	0.0507	D	mg/l	0.00019	0.0500	0.00153	98	80-120		
Zinc	0.0642	D	mg/l	0.00116	0.0500	0.00867	111	80-120		

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Notes and Definitions

B	Analyte is found in the associated blank as well as in the sample (CLP B-flag).
D	Data reported from a dilution
E	This flag indicates the concentration for this analyte is an estimated value due to exceeding the calibration range or interferences resulting in a biased final concentration.
GS1	Sample dilution required for high concentration of target analytes to be within the instrument calibration range.
J	Detected above the Method Detection Limit but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).
QB2	The method blank contains analyte at a concentration above the MRL, however no reportable concentration is present in the sample.
QC2	Analyte out of acceptance range in QC spike but no reportable concentration present in sample.
QM10	LCS/LCSD were analyzed in place of MS/MSD.
QM7	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
QM9	The spike recovery for this QC sample is outside the established control limits. The sample results for the QC batch were accepted based on LCS/LCSD or SRM recoveries within the control limits.
QR2	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
QR5	RPD out of acceptance range.
R06	MRL raised to correlate to batch QC reporting limits.
U	Analyte included in the analysis, but not detected at or above the MDL.
dry	Sample results reported on a dry weight basis
NR	Not Reported
RPD	Relative Percent Difference

Laboratory Control Sample (LCS): A known matrix spiked with compound(s) representative of the target analytes, which is used to document laboratory performance.

Matrix Duplicate: An intra-laboratory split sample which is used to document the precision of a method in a given sample matrix.

Matrix Spike: An aliquot of a sample spiked with a known concentration of target analyte(s). The spiking occurs prior to sample preparation and analysis. A matrix spike is used to document the bias of a method in a given sample matrix.

Method Blank: An analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The method blank should be carried through the complete sample preparation and analytical procedure. The method blank is used to document contamination resulting from the analytical process.

Method Detection Limit (MDL): The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.

Reportable Detection Limit (RDL): The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. For many analytes the RDL analyte concentration is selected as the lowest non-zero standard in the calibration curve. While the RDL is approximately 5 to 10 times the MDL, the RDL for each sample takes into account the sample volume/weight, extract/digestate volume, cleanup procedures and, if applicable, dry weight correction. Sample RDLs are highly matrix-dependent.

Surrogate: An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. These compounds are spiked into all blanks, standards, and samples prior to analysis. Percent recoveries are calculated for each surrogate.

Continuing Calibration Verification: The calibration relationship established during the initial calibration must be verified at periodic intervals. Concentrations, intervals, and criteria are method specific.

Validated by:
Emily Kinney
Erica Troy
Jackie Clement
Wes Bryon

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Spectrum Analytical

CHAIN OF CUSTODY RECORD

Page 1 of 3

Report To: Ramboll Environ
3 Carlisle Rd Suite 210
Westford MA

Telephone #: 603-703-5534
Project Mgr: John Noble

F=Field Filtered I=Na₂S₂O₃ 2=HCl 3=H₂SO₄ 4=HNO₃ 5=NaOH 6=Ascorbic Acid
7=CH₃OH 8=NaHSO₄ 9=Deionized Water 10=H₃PO₄ 11= _____ 12= _____

DW=Dinking Water GW=Groundwater SW=Surface Water WW=Waste Water

O=Oil SO=Soil SL=Sludge A=Indoor/Ambient Air SG=Soil Gas

X1= Trip BlankX2= Equipment Blank X3= _____

G= Grab

C=Composite

Lab ID:	Sample ID:	Date:	Time:	Type	Matrix	Containers				Analysis				Check if chlorinated	QA/QC Reporting Notes: * additional charges may apply
						# of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	VOCs 8260	As, Cd, Cr, Cu, Ni, Zn	Dissolved As, Cd, Cu, Zn (6020)*			
19647-01	TB-20160330	3/30/16	0900	G	X1	1				X				<input type="checkbox"/>	
-02	EB-20160330		1200	G	X2	3			1	X	X			<input type="checkbox"/>	
-03	DUP-20160330		NA	G	SW	3			1	X	X			<input type="checkbox"/>	
-04	SW-NR-1/20160330		0935	G	SW	3			1	X	X			<input type="checkbox"/>	
-05	SW-NR-2/20160330	(4c)	1000	G	SW	3			1	X	X			<input type="checkbox"/>	
-06	SW-BB-1/20160330		1100	G	SW	3			1	X	X			<input type="checkbox"/>	
-07	SW-BB-2/20160330		1130	G	SW	3			1	X	X			<input type="checkbox"/>	
-08	MW-44D/20160330		1225	G	GW	3			1	X	X			<input type="checkbox"/>	
-09	MW-435/20160330	↓	1300	G	GW	3			1	X	X			<input type="checkbox"/>	
-10	MW-43D/20160330	3/30/16	1345	G	GW	3			1	X	X			<input type="checkbox"/>	

Relinquished by:

J. D. e
G. KurtJ. Kuta
OLV

Received by:

Date:

3-31-16

Time:

1430

Temp °C

Observed

Correction Factor

Corrected

IR ID #

 EDD format: Environ Equis 4 File E-mail to: jnoble@ramboll.com

* Freshwater Aquatic Life Criteria, Report J values

Condition upon receipt: Custody Seals: Present Intact Broken Ambient Liquid Refrigerated DI VOA Frozen Soil Jar Frozen

SC 19667



Spectrum Analytical

CHAIN OF CUSTODY RECORD

Page 2 of 3

Special Handling:

 Standard TAT - 7 to 10 business days 5 Day
 Rush TAT - Date Needed: _____

All TATs subject to laboratory approval

Min. 24-hr notification needed for rushes

Samples disposed after 60 days unless otherwise instructed.

Report To: Ramboll Environ
3 Carlisle Rd Suite 210
Westford MA

Telephone #: 603-703-5534
Project Mgr: John Noble

Invoice To: Kris Sibinga
Envirite Corporation
PO Box 541
Chappaqua NY 10514

P.O No.: _____ Quote #: _____

Project No: 08-14218H
Site Name: Envirite RCRA Landfill
Location: Thomaston
Sampler(s): Luke C.
John V. State: CT

F=Field Filtered 1=Na₂S₂O₃ 2=HCl 3=H₂SO₄ 4=HNO₃ 5=NaOH 6=Ascorbic Acid
7=CH₃OH 8=NaHSO₄ 9=Deionized Water 10=H₃PO₄ 11= _____ 12= _____

List Preservative Code below:

24

DW=Dinking Water GW=Groundwater SW=Surface Water WW=Waste Water

O=Oil SO=Soil SL=Sludge A=Indoor/Ambient Air SG=Soil Gas

X1= Trip BlankX2= Equipment Blank X3= _____

QA/QC Reporting Notes:

* additional charges may apply

MA DEP MCP CAM Report? Yes NoCT DPH RCP Report? Yes No
 Standard No QC

 DQA*

 ASP A* ASP B*

 NJ Reduced* NJ Full*

 Tier II* Tier IV*

 Other: CT RCP CT RSRS

State-specific reporting standards:

Lab ID:	Sample ID:	Date:	Time:	Type	Matrix	Containers				Analysis				Check if chlorinated
						# of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	VOCs	As, Cd, Cr, Cu, Hg, Ni, Pb, Zn	Ni	Pb	
19667 -11	MW-425/20160330	3/30/16	1525	G	GW	3			1	X	X			<input type="checkbox"/>
-12	MW-418/20160330	3/30/16	1515	G	GW	3			1	X	X			<input type="checkbox"/>
-13	MW-41D/20160330	3/30/16	1345	G	GW	3			1	X	X			<input type="checkbox"/>
-14	TB-20160331	3/31/16	0900	G	X1	1				X				<input type="checkbox"/>
-15	EB-20160331		1200	G	X2	3			1	X	X			<input type="checkbox"/>
-16	DUP-20160331		NA	G	GW	3			1	X	X			<input type="checkbox"/>
-17	MW-51D/20160331	(40)	0935	G	GW	3			1	X	X			<input type="checkbox"/>
-18	MW-50S/20160331		0925	G	GW	3			1	X	X			<input type="checkbox"/>
-19	MW-53D/20160331		1040	G	GW	3			1	X	X			<input type="checkbox"/>
-20	MW-30/20160331	3/31/16	1215	G	GW	3			1	X	X			<input type="checkbox"/>

Relinquished by:

Received by:

Date:

3-31-16 14:00
3/31/16 16:35

Time:

Observed
2.1
Correction Factor
2.0
Corrected
2.1
IR ID #
02

Temp °C

EDD format: Environ Equis 4 F.1e
 E-mail to: jnobles@ramboll.com

Condition upon receipt: Custody Seals: Present Intact Broken

Ambient Liquid Refrigerated DI VOA Frozen Soil Jar Frozen



Spectrum Analytical

CHAIN OF CUSTODY RECORD

Page 3 of 3

Report To: Ramboll Environ
3 Carlisle Rd Suite 210
Westford MA

Telephone #: 603-703-5534
Project Mgr: John Noble

F=Field Filtered 1=Na₂S₂O₃ 2=HCl 3=H₂SO₄ 4=HNO₃ 5=NaOH 6=Ascorbic Acid
7=CH₃OH 8=NaHSO₄ 9=Deionized Water 10=H₃PO₄ 11= _____ 12= _____

DW=Dinking Water GW=Groundwater SW=Surface Water WW=Waste Water
O=Oil SO=Soil SL=Sludge A=Indoor/Ambient Air SG=Soil Gas

X1= _____ X2= _____ X3= _____

G=Grab

C=Compsite

Lab ID:	Sample ID:	Date:	Time:	Type	Matrix
19667-21	MW-315/20160331	3/31/16	1215	G	GW
J-22	MW-315/20160331 F	3/31/16	1215	G	GW

Relinquished by:	Received by:	Date:	Time:	Temp °C		
<u>J. Noble</u>	<u>Kris Sibinga</u>	3/31/16	14:00	21	Observed	<input type="checkbox"/> EDD format: <u>Environ Equis 4 File</u>
		3/31/16	16:35	21	Corrected Factor	<input type="checkbox"/> E-mail to: <u>jnoble@ramboll.com</u>
				21	Corrected	Condition upon receipt: Custody Seals: <input type="checkbox"/> Present <input type="checkbox"/> Intact <input type="checkbox"/> Broken
				02	IR ID #	<input type="checkbox"/> Ambient <input type="checkbox"/> Iced <input checked="" type="checkbox"/> Refrigerated <input type="checkbox"/> DI VOA Frozen <input type="checkbox"/> Soil Jar Frozen

SC 19667

Special Handling:

 Standard TAT - 7 to 10 business days 5 Day Rush TAT - Date Needed: _____

All TATs subject to laboratory approval

Min. 24-hr notification needed for rushes

Samples disposed after 60 days unless otherwise instructed.

Project No: 08-14218HSite Name: Envirite RCRA LandfillLocation: ThomastonSampler(s): Luke CJohn UState: CT

QA/QC Reporting Notes:

* additional charges may apply

MA DEP MCP CAM Report? Yes No
CT DPH RCP Report? Yes No

Standard No QC

DQA*

ASP A* ASP B*

NJ Reduced* NJ Full*

Tier II* Tier IV*

Other: CT RCP CT RSRS
State-specific reporting standards:

Field Filtered - Run

per client request

EM 4/14

**APPENDIX C
DATA VALIDATION REVIEW REPORT – MARCH 2016 SAMPLING EVENT**

DATA VALIDATION REVIEW

Environmental Monitoring Event – March 2016

Envirite RCRA Facility
Old Waterbury Road
Thomaston, Connecticut

Laboratory Sample Delivery Groups (SDGs): SC19667

Laboratory: Eurofins Spectrum Analytical, Agawam, Massachusetts

Reviewer: Rob Huening

Date Reviewed: April 19, 2016

This data validation report has been prepared by Ramboll Environ US Corporation (Ramboll Environ) to assess the validity and usability of laboratory analytical data generated from samples collected during the groundwater monitoring event at the Envirite RCRA Facility in Thomaston, Connecticut, (the “site”) from March 30 - 31, 2016. Analytical services for the analysis of 22 aqueous samples were provided by Eurofins Spectrum Analytical, Inc. (Spectrum) in Agawam, Massachusetts.

The analytical data were evaluated for quality assurance and quality control (QA/QC) based on the following documents:

- Quality Assurance Project Plan (QAPP)/Sampling Analysis Plan (SAP) for the Envirite RCRA Facility, Old Waterbury Road, Thomaston, Connecticut (December 2013);
- USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008); and
- USEPA, Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review, (January, 2010).

This report summarizes the QA/QC evaluation of the data according to precision, accuracy, representativeness, completeness and comparability relative to the project data quality objectives. This report provides a quantitative and qualitative assessment of the data and identifies potential sources of error, uncertainty, and bias that may affect the overall usability of the data.

Per the December 2013 QAPP/SAP, a USEPA Tier I data validation was performed on all laboratory data. The QAPP/SAP specified that a minimum of 10% of the data would undergo USEPA Tier II data validation. All of the groundwater and surface water data in SDG SC19667 underwent USEPA Tier II data validation in conjunction with this effort.

The following table summarizes the field samples and quality control samples submitted to the laboratory which underwent Tier II data validation:

Data Validation Review
March 2016 Environmental Monitoring Event

Envirite RCRA Facility

Field ID	Sample Type	Lab ID	Matrix	Analyses		
				VOCs	Total Metals	Dissolved Metals
SDG: SC19667						
TB-20160330	TB	SC19667-01	Aqueous	X	---	---
EB-20160330	EB	SC19667-02	Aqueous	X	---	X
DUP-20160330	FD	SC19667-03	Aqueous	X	---	X
SW-NR-1/20160330	SA	SC19667-04	Aqueous	X	---	X
SW-NR-2/20160330	SA	SC19667-05	Aqueous	X	---	X
SW-BB-1/20160330	SA	SC19667-06	Aqueous	X	---	X
SW-BB-2/20160330	SA	SC19667-07	Aqueous	X	---	X
MW-44D/20160330	SA	SC19667-08	Aqueous	X	X	---
MW-43S/20160330	SA	SC19667-09	Aqueous	X	X	---
MW-43D/20160330	SA	SC19667-10	Aqueous	X	X	---
MW-42S/20160330	SA	SC19667-11	Aqueous	X	X	---
MW-41S/20160330	SA	SC19667-12	Aqueous	X	X	---
MW-41D/20160330	SA	SC19667-13	Aqueous	X	X	---
TB-20160331	TB	SC19667-14	Aqueous	X	---	---
EB-20160331	EB	SC19667-15	Aqueous	X	X	---
DUP-20160331	FD	SC19667-16	Aqueous	X	X	---
MW-51D/20160331	SA	SC19667-17	Aqueous	X	X	---
MW-50S/20160331	SA	SC19667-18	Aqueous	X	X	---
MW-53D/20160331	SA	SC19667-19	Aqueous	X	X	---
MW-30/20160331	SA	SC19667-20	Aqueous	X	X	---
MW-31S/20160331	SA	SC19667-21	Aqueous	X	X	---
MW-31S/20160331F	SA	SC19667-22	Aqueous	---	---	X

Sample Type: SA = Sample TB = Trip Blank FD = Field Duplicate EB = Equipment Blank
 --- = Analysis was not performed for this analytical parameter
VOCs = Volatile Organic Compounds by USEPA Method SW-846 8260C by Gas Chromatography/Mass Spectrometry (GC/MS) Medium Level.
Total Metals = Arsenic, Barium, Cadmium, Chromium, Copper, Nickel and Zinc by EPA Method 6010C.
Dissolved Metals = Arsenic, Cadmium, Copper, and Zinc by USEPA Method 6020A.

General Overall Assessment:

- Data are usable without qualification.
- Data are usable with qualification (noted below).
- Some or all data are unusable for any purpose (detailed below).
 The data are usable for its intended purpose based on an evaluation of the QC parameters discussed in this report. Some data are qualified as estimated due to the inability to meet all QC criteria.

Data Qualifier Summary

The data are usable for its intended purpose based on an evaluation of the QC parameters discussed in this report. Some data are qualified as estimated due to the inability to meet all QC criteria. The table below summarizes the final qualifications for the analytical data.

Field ID	Parameter	Analyte	Qualification
All SW Samples	6020A	Zinc, Copper	UJ
EB-20160330	6020A	Zinc	UJ
MW-43S/20160331	6010C	Zinc	UJ
MW-41S/20160331	6010C	Zinc	UJ
MW-41D/20160331	6010C	Zinc	UJ
MW-53D/20160331	6010C	Zinc	UJ
All Samples	8260C	Vinyl Chloride, Freon12	J
SW-BB-2/20160330	6020A	Arsenic	J
MW-53D/20160331	8260C	Chloromethane	J
MW-30/20160331	8260C	Chloromethane	J
MW-31S/20160331	8260C	Chloromethane	J

Data Validation Qualifier Codes:

U = Non-detect. The compound was analyzed for, but not detected.

J = Estimated. The associated numerical value is an estimated quantity. The analyte was detected but the reported value may not be accurate or precise.

UJ = Estimated Non-detect. The analyte was not detected above the method detection limit. However, it is an estimated quantity due to poor accuracy, precision, or potential cross-contamination. This qualification is also used to flag possible false negative results in the case where low bias in the analytical system is indicated by low calibration response, surrogate or other spike recovery.

1 = Estimated due to deficiencies in LCS/LCSD samples

2 = Non-detection due to possible cross-contamination

Case Narrative Comments: Any case narrative comments concerning data qualification were noted below.

1.0 Data Package Completeness

Were all items delivered as specified in the QAPP and COC (Chain of Custody)?

Yes, the laboratory followed adequate corrective action processes and all anomalies were discussed in the case narrative.

2.0 Laboratory Case Narrative, Sample Preservation and Cooler Receipt Form

Were problems noted in the laboratory case narrative or cooler receipt form?

Samples were received at the Spectrum Analytical, Inc. laboratory in good condition. Temperature upon receipt of sample batch was 2.1°C. Acceptable temperature range is 2 - 6°C. No action taken.

3.0 Technical Holding Times

Were samples extracted/analyzed within method specific holding time requirements?

Yes. All samples were prepared and/or analyzed within method specific required holding times.

4.0 Blank Contamination

Were any analytes detected in the Method Blanks or Trip Blanks?

There were detections of copper and zinc in the surface water Equipment Blank sample EB-20160330 at estimated concentrations of 0.00034 mg/L and 0.00239 mg/L respectively. These detections represent possible indicators of cross-contamination from the filters used to filter the surface water samples in the field for dissolved metals analysis. Please note that the surface water equipment blanks were prepared by purging approximately 1.5 liters of laboratory supplied distilled-deionized control water through the filters, prior to equipment blank sample collection. All samples with analyte results less than 5x these blank detection results will be flagged as estimated non-detections (UJ) as the result may be due only to cross-contamination. (See summary table for samples qualified)

There were also a 0.0074 mg/l detection of zinc in the groundwater equipment blank, EB-020160331. All samples with analyte results within 5x these blank detection results will be flagged as estimated non-detections (UJ) as the result may be due only to cross-contamination. (See summary table for samples qualified)

In addition, Zinc was detected in a lab method blank sample. In order to adjust for this detection, the lab raised the reporting limit for Zinc. Due to this the detection of zinc in the surface water equipment blank (EB-20160330) was qualified as estimated non-detect (UJ).

All qualified detections were at least one order of magnitude below their relevant criteria. This indicates that the qualifications do not effect data usability.

5.0 Laboratory Control Sample

Were LCS recoveries within evaluation criteria?

No. The laboratory control sample (LCS) provides information on the accuracy of the analytical method and on the laboratory performance. The following table summarizes the LCS results that were outside the acceptance limits.

LCS ID	Parameter	Analyte	LCS/LCSD (%)	RPD (%)	LCS/LCSD/ RPD Criteria (Recovery %)
1605539 BS/BSD	6020A	Arsenic	119/117	-	85-115/20
1605474 BS/BSD	8260C	Ethanol	-	33	70-130/20
1605474 BS/BSD	8260C	Vinyl Chloride	64/70	-	70-130/20
1605556 BS/BSD	8260C	Chloromethane	75/68	-	70-130/20
1605556 BS/BSD	8260C	Freon12	75/69	-	70-130/20

ID = Identification LCS/D = Laboratory Control Sample/Duplicate RPD = Relative Percent Difference
% = Percent

Analytical data reported as non-detect and associated with LCS recoveries above evaluation criteria, indicating a possible high bias, did not require qualification. Data qualification of sample results due to LCS recoveries is summarized in the table below.

Field ID	Parameter	Analyte	Qualification
SW-BB-2/20160330	6020A	Arsenic	J
MW-53D/20160331	8260C	Chloromethane	J
MW-30/20160331	8260C	Chloromethane	J
MW-31S/20160331	8260C	Chloromethane	J
TB-20160331	8260C	Vinyl Chloride	J
EB-20160331	8260C	Vinyl Chloride	J
DUP-20160331	8260C	Vinyl Chloride	J
MW-51D/20160331	8260C	Vinyl Chloride	J
MW-50S/20160331	8260C	Vinyl Chloride	J
MW-31S/20160331	8260C	Vinyl Chloride	J
MW-53D/20160331	8260C	Freon12	J
MW-30/20160331	8260C	Freon12	J
MW-31S/20160331	8260C	Freon12	J

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

Yes. Surrogates are added to all volatile samples prior to purging to evaluate the laboratory performance on individual samples. Four volatile surrogates (dibromofluoromethane, 1,2-dichloroethane-d4, toluene-d8, and bromofluorobenzene) were added to each volatile sample. Percent recoveries (%R) for all volatile surrogates in all samples were within laboratory evaluation criteria with no exceptions.

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

Were MS/MSD samples reported as part of this SDG?

Yes. A matrix spike was performed from a site-specific sample for all parameters.

Were MS/MSD recoveries within evaluation criteria?

No. Recoveries for several compounds were low, indicating a possible low bias to data. A summary of samples affected is below. While there were other analytes out of criteria, in those cases the spike level of the MS was less than 4x the sample concentration; therefore, no action was taken.

Field ID	Parameter	Analyte	Qualification
All Samples	8260C	Vinyl Chloride	J

8.0 Post Spike (Metals only)

Were post spike recoveries within evaluation criteria?

Yes. The post digestive spike recoveries were acceptable. **Therefore qualification of data was not required.**

9.0 Laboratory Duplicate Results

Were laboratory duplicate samples performed as part of this SDG?

Yes, as spiked duplicates, which are discussed in the previous sections. In addition laboratory duplicates were reported for metals analysis. Duplicates (besides those discussed above) had acceptable RPDs. **Therefore qualification of data was not required.**

10.0 Field Duplicate Results

Were field duplicate samples collected as part of the evaluated SDGs?

Yes. The table below summarizes field duplicate pairs.

Field ID	Field Duplicate ID
SW-NR-1/20160330	DUP-20160330
MW-51D/20151023	DUP-20160331

Were field duplicates within evaluation criteria?

Yes. All RPD's of reported results were less than the acceptance limits of $\pm 30\%$ for aqueous samples.

11.0 Detects and Calibration Range

For samples that were diluted and non-detect, were undiluted results also reported?

No.

The following table identifies the analyses which were reported as non-detect, diluted, and an undiluted run **was not** reported:

Field ID	Parameter	Dilution Factor
MW-30/20160331	8260C	5
MW-31S/20160331	8260C	200, 500

For samples that were diluted, were the detected results divided by the dilution factors greater than the reporting limits and within calibration range?

Yes. Data users should be aware of the elevated detection limits when evaluating data usage for comparison to project standards.

For samples that were not diluted and detected, were the results within calibration range?

Yes. Samples where results were reported that exceeded the calibration range, were re-analyzed at dilution.

12.0 Additional Qualifications/Quality Control Outliers

Were additional qualifications applied?

- Several VOC analyte percent recoveries for continuing calibration verification (CCV) were outside individual acceptance criteria of 20%; however the percent recoveries were within overall method allowances. For two compounds, vinyl chloride and Freon12, given other QC deficiencies (LCS/SD and MS/MSD) the low bias confirmed by CCV results warranted additional qualification. **All results for vinyl chloride and Freon12 should be considered estimated (J).**
- Several VOC analyte percent recovery for initial calibration verification (ICV) were outside individual acceptance criteria; **however, the percent recoveries were within overall method allowances therefore qualification of data was not required.**
- Several reporting limits were raised to correlate to batch quality control reporting limits. Data users should be aware of these elevated reporting limits when evaluating data usage for comparison to project standards.

13.0 Overall Data Assessment

The data are usable for its intended purpose based on an evaluation of the QC parameters discussed in this report. Some data were qualified as estimated due to the inability to meet all QC criteria. The Data Qualifier Summary table at the front of this document summarizes the final qualifications for the analytical data.